THE

TIMES AND REGISTER.

A Weekly Journal of Medicine and Surgery.

Published under the auspices of the American Medical Press Association.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

Vol. XXII. No. 12. Whole No. 654. } NEW YORK AND PHILADELPHIA, MARCH 21, 1891. { Yearly Subscription $3.00, in advance. Single Numbers 10 cents.

Notes and Items.

BROMIDIA is used more to-day than ever. It is reliable and never fails in its action.—*Canada Lancet.*

A LITTLE BOY caught a very severe cold while his mamma was out of the city, and on her return rushed up to her, eager for her sympathy, and throwing his arms around her, cried: "Oh, mamma, both of my eyes is rainin', and one of my noses won't go."

ONE of the most valuable combinations for cardiac affections is the following, taken from Mulford & Co.'s list:

℞.—Caffeinæ citrat.....gr. ij.
Ext. cacti grand. fl.....gtt. v.
Tr. digitalis.....gtt. ij.
M.—S. One tablet.

This combination originated with Dr. R. G. Curtain. It is of special utility in pain around the heart, from organic disease, fatty degeneration, etc.

OF all the deadly things that war
Against our peace and kill us,
The worst and deadliest by far—
As proved by the researches of scientific men in Germany, France, and several towns in Michigan, who have made the matter a study and found out by experimenting with guinea-pigs and other cheap animals how to cure almost anything but warts and catarrh—
Is merely a bacillus—

—*Chicago Tribune.*

BLACK GETS A BLACK EYE.

A New York Judge Renders a Decision in favor of the R. S. Peale Reprint of the Encyclopædia Britannica.

[New York Special]—Judge Wallace, in the United States Circuit Court rendered a decision today, refusing to grant an injunction against the firm of Ehrich Bros., to restrain them from selling the "Encyclopædia Britannica," published by R. S. Peale & Co., of Chicago. The complainants are the firm of Black & Co., publishers of the original work at Edinburgh, Scotland. In his decision Judge Wallace holds that rival publishers in this country have a legal right to use the contents of the original edition, except such portions of them as are covered by copyrights, secured by American authors. The defendant's work, he finds, has substituted new articles for these copyrighted ones.

This decision is a square set back to the book trust, and directly in the interest of education and general intelligence. As an educational factor in every household, no work in all literature is so important and desirable as this KING OF ENCYCLOPÆDIAS, of which it has been said that "If all other books should be destroyed, the Bible excepted, the world would have lost very little of its information." Until recently its high cost has been a bar to its popular use, the price being $5.00 per volume, $125.00 for the set in the cheapest binding. But last year the publishing firm of R. S. Peale & Co., of Chicago, issued a new reprint of this great work at the marvelous price of *$1.50 per volume.* That the public were quick to appreciate so great a bargain is shown by the fact that over half a million volumes of this reprint were sold in less than six months. It is the attempt of the proprietors of the high priced edition to stop the sale of this desirable low priced edition, which Judge Wallace has effectually squelched by his decision. We learn that R. S. Peale & Co. have perfected their edition, correcting such minor defects as are inevitable in the first issue of so large a work, and not only do they continue to furnish it at the marvelously low price quoted above, but they offer to deliver the complete set at once on small easy payments, to suit the convenience of their customers. It a thoroughly satisfactory edition, printed on good paper, strongly and handsomely bound, and has new maps, later and better than any other edition. We advise all who want this greatest and best of all Encyclopædias to get particulars from the publishers, R. S. Peale & Co., Chicago.

The Times and Register.

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Clinical Lecture.

GLAUCOMA.[1]

BY P. D. KEYSER, M.D.,
Professor of Ophthalmology.

THIS is one of the most important and most dangerous diseases of the eye. It stands third as a cause of blindness, in many of which cases the blindness has been due to bad treatment or neglect, for want of knowledge to diagnose the disease correctly.

The term glaucoma was applied by Hippocrates to all opacities situated behind the pupil. Later it was applied to those which presented a greenish appearance. It has been called arthritic ophthalmia, because supposed to be found in gouty persons. The term is now applied to a condition characterized by increased intraocular tension, with rigidity or hardness of the ball.

With the ophthalmoscope we see that there is always a peculiar alteration in the optic disc and vessels. The entrance of the optic nerve was at first supposed to have the appearance of being swollen, but later research, however, proved it not to be swollen, but cupped. This cupping is supposed to be due to the pressure of an excessive amount of fluids in the eye, causing the optic nerve to recede or give way.

There are several varieties of the disease. It is divided into inflammatory and non-inflammatory; some cases presenting marked inflammatory symptoms and others seeming to be free from them; again, it may exist primarily or may complicate another disease, being frequently produced by anterior synechia in old persons, so that we have also the primary and secondary forms.

All of the varieties lead to a condition of stony hardness in the ball, and a cupped disc, followed by complete blindness, and show common symptoms as follows:

1. Premonitory stage, (glaucoma incipiens.)

2. Stage in which the disease is fully developed, (glaucoma confirmata.)

3. Stage in which qualitative appreciation of light alone is present, the quantitative appreciation being lost, (glaucoma absolutem.)

4. Stage in which the eye has lost its sight, and degeneration of the ball begins to take place, (glaucoma degenerativa.)

There are two forms of inflammatory glaucoma, acute and chronic.

The acute form has, in the majority of cases, a premonitory stage, which is characterized by several or all of the following symptoms, which occur with intervals of remission. When they are present without remissions, it is no longer called the premonitory stage.

There is increased tension of the eye ball. To detect this press gently upon the top of the ball with the index fingers (not two fingers of the same hand) and the tension is determined by the sense of fluctuation. It is designated as normal, +1, +2, +3 or —1, —2, —3. The increase of tension is generally not very considerable at first, and the vision remains normal. Next there is a rapid increase of any pre-

[1] Delivered at the Medico-Chirurgical College, February 6, 1891. Reported by Mr. A. Hunter.

existing presbyopia, so that in the course of a few weeks the patient feels the need of a change of glasses. With the ophthalmoscope, the retinal veins are found to be tortuous, and become, as it were, varicose, which is not normal. Arterial pulsation, which is never seen in the normal eye, is noticed in the disc, and is always pathological. The pupil shows well-marked dilatation and sluggishness, and does not respond quickly to the light. To detect this compare the pupil of one eye with the other. The iris is pressed forward, causing a shallowness of the anterior chamber.

There is also a periodical dimness of sight, which seems to pass away on closing the eyes and resting awhile. This is caused by disturbances of the circulation, often brought on by eating, exercise, stooping, etc. The appearance of a rainbow, or halo, around a candle, is a constant symptom in the premonitory stage, and is a symptom seen only in glaucoma. Ciliary neuralgia is present, the patient complaining of pain running through to the head, which is due to pressure on the ciliary nerves. There is a reduction of the field of vision, which is especially noticeable towards the nasal side. The aqueous is cloudy at times, which cloudiness is uniform.

At the commencement, these premonitory symptoms show themselves only at long intervals. Later, however, they follow with shorter remissions, and finally do not disappear even after sleep.

The premonitory stage may last for years, but in the majority of cases does not extend beyond a few months. The patient has severe, excruciating pain in the forehead, temples, down the corresponding side of the nose, sometimes to the occiput. There may also be nausea and vomiting.

In the first attack of acute glaucoma, the cupping of the nerve is seldom seen.

The impairment of vision is not due so much to pressure on the nerves, but to decreased blood supply.

In the great majority of cases there are marked inflammatory symptoms.

The disease is in the ureal tract, (choroid, ciliary body and iris.)

The pressure being within the eye, from an excessive amount of the fluids therein, and the sclerotic being hard, stiff and unyielding, the choroid and optic nerve are pressed upon, the nerve being pushed back and cupped, and the iris, lens, ciliary body, etc., being pushed forward, thereby partly closing the canal of Schlemm. As this is the only channel for draining or filtration of the eye ball, the fluids are retained and the ball becomes rigid.

Several operations have been recommended for the treatment of this disease, but iridectomy is the only known cure for this condition, and in the chronic cases even this treatment is not always successful. Cutting the iris is supposed to act by relieving the tension and thus allowing the fluids to be drained off from the eye more readily. In making this operation, the iris must be cut through as near as possible to its attachment to the ciliary body. Eserine temporarily reduces glaucoma, and is the only drug known to have such effect.

In the fourth stage, after the sight has been lost, severe pain is apt to set in. Even then, the pain is sometimes relieved by iridectomy. Sometimes this operation is not possible, and enucleation must be resorted to.

In the severe acute inflammatory form, the patient may go to bed perfectly well and wake up in the night with intense pain and blindness. In these cases iridectomy cannot be resorted to immediately, on account of the hemorrhage which occurs in the ball—often filling the anterior chamber. Eserine must be used until the swelling subsides and an operation may be performed.

Glaucoma seems to run in families, in which is found a normal increase of tension in the eye balls; in such cases great care must be exercised in the use of a mydriatic at any time. It rarely arises in the young, being seen generally after forty; is less frequent in males than in females, in whom it occurs after the menopause.

Original Articles.

THE INTRODUCTION OF DRUGS INTO THE HUMAN BODY BY ELECTRICITY.[1]

By FREDERICK PETERSON, M.D.,

Chief of Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York.

IT is with some degree of diffidence that I have ventured to accept the kind invitation of the former president of your society to read a short paper upon the subject of Electric Cataphoresis, for the reason that I have already written about all that I know concerning it, and that I already find myself placed, with many of my good friends, among hobby-riders. Just as some of them are designated, or at least in danger of being so-called, Apostoli cranks, bacillus cranks, hydrotherapeutic cranks, and the like, so I have begun to hear faint whisperings of a similar term applied to myself in connection with anodal diffusion. But I wish to shun the imputation at once, by stating that it is not a panacea for all human ills, that, indeed, it is useful in only a few conditions of the human system. Presuming, then, that its limitations as a therapeutic agent are many, it is in order to speak of it first historically and then practically.

While the diffusion of solutions through a membrane by the anode, and of the sarcous substance of muscle from the anode to the cathode had been known to electricians, the earliest investigation of its power to drive drugs through the human skin was made by Richardson in 1859 with morphine, aconite and chloroform. Nothing further was written until 1886, when Wagner, Adamkiewicz, Lumbroso, Matteini, and others re-introduced the subject in connection with chloroform. Corning and Reynolds made some experiments later with cocaine solutions upon the anode.

My own trials have been conducted since 1888, and the results published from time to time since then.[2] The drugs made use of have been cocaine, chloroform, menthol, aconitia, onabain, strophanthin, carbolic acid, strychnine, succinimide of mercury, corrosive sublimate, iodol, iodide of potash, helleborin and the citrate, benzoate and chloride of lithium. Within a very short time experiments have been carried on by Cagney, of London, Gärtner, of Vienna, and Edison, in this country, with the results of all of which you are doubtless familiar.

[1] Read before the Philadelphia Electro-therapeutic Society, Thursday evening, February 12, 1891.

[2] Electric Cataphoresis as a Therapeutic Measure, *N. Y. Medical Journal*, April 27, 1889.

Note on a New System of Exact Dosage in the Cataphoretic Use of Drugs, *N. Y. Medical Journal*, November 15, 1890.

Farther Studies of the Therapeutics of Anodal Diffusion, *N. Y. Medical Record*, January 31, 1891.

When my first paper was read before the Section in Theory and Practice, of the New York Academy of Medicine, the cataphoretic power of the galvanic current was still so little understood, that considerable incredulity, if not positive disbelief in the existence of such a power, was manifested by some who participated in the discussion. But so much has been accomplished since then, that there is no longer any doubt as to the actual diffusion of drugs in solution through the skin, and into the subcutaneous tissues by the galvanic anode, and it only remains to be established what actual therapeutic value over and above any other means of administration this particular method may possess, and to what disorders it may be especially applicable.

One of the reasonable criticisms has been, that even if drugs were diffused as stated, exact dosage was impossible; but this is no longer a valid objection, since, very recently, it has become possible to make the doses accurate and certain.

A number of electrodes have been devised for cataphoretic purposes, some of them quite complicated, like those of Adamkiewiçz, Munk, and my own. But these are now no longer necessary. The cataphoretic electrode should be very simple—an ordinary metal one, either with or without a covering of cloth or sponge. Electrodes of tin are the cheapest, and the oxides may be easily scraped off when they collect. Gold or platinum would be better, but are very expensive, about equally so.

The ordinary sponge electrodes may be employed with solutions, such as those of lithium, iodide of potash, iodine, and the like, where precision in dosage is not required; the plain metal ones, however, for the more careful administration of medicaments like cocaine, aconitia, strychnine, and helleborin. A narrow rim of rubber around the metal surface is needed to prevent evaporation. A disc of cotton cloth, or tissue or blotting paper, may be cut to fit the metallic surface, and upon this is dropped any desirable quantity of the drug in solution. The wet disc of paper is next the skin and prevents burning.

It is sometimes useful to prepare the skin a little before treatment, by rubbing with ether, to dissolve out the oil globules. The anode being applied with the drug, the cathode may be placed anywhere upon the surface of the body, and a current of any endurable strength turned on. The stronger the current the speedier the effect.

Besides the use of these simple electrodes, it is often desirable to make more extensive applications over wider areas. If, for instance, it were wished to diffuse a solution of lithium about a large joint like the knee, a sufficiently large strip of zinc is covered with sponge or cloth saturated with the solution, tied around the extremity, to be then connected with the anodal rheophore. For diffusion through the whole body a bath-tub is used, one either constructed for the purpose or any ordinary bath-tub. The common bath-tub of our houses is readily converted into an anode by placing a large sheet of zinc on the bottom, and connecting it with an insulated copper wire. The sheet of zinc is then covered over with a board to prevent its contact with the body. When the patient is immersed in the bath, he merely keeps one arm out to grasp the cathode, and the circuit is made.

These are in brief the means by which drugs are introduced into the body, and it is clear that any soluble agent may be employed in some one of the ways described. The poisonous medicaments, which are to be administered in accurate doses, are kept either in solution (cocaine 10 to 20 per cent., helleborin 1 per cent., etc.), or discs of filtering paper impregnated with solutions and dried, and containing a known quantity of the remedy, are kept on hand for the purpose. Such cataphoretic discs may be made by any pharmacist.[1]

As regards now the therapeutical advantages of anodal diffusion, it would seem as though it had its widest applicability in maladies of the skin and mucous membranes, or of immediately subjacent tissues; but, of course, it may be given a much greater scope in conjunction with mineral, antiseptic and alterative baths, which is a problem for the investigations of others in the future.

Dermatologists have already evinced considerable interest in the subject, but I have no doubt that the rhinologist, laryngologist and gynecologist who have so much dealing with mucous membranes, will, in the course of time, avail themselves profitably of a power which promises so largely.

Surgeons have employed it frequently and successfully for local anæsthesia in minor surgical operations.

The physician cannot fail to take up the particular line pointed out by Edison, and make use of local applications by means of sponges, or general by means of baths, for the purpose of influencing local and systemic affections like gout and rheumatism.

I was led myself into making a study of electric cataphoresis by my own work in a neurological line, and my first experiments were conducted with a view to relieving pain. I received the suggestion after vainly endeavoring to combat severe supraorbital neuralgias in several patients. All known appliances and agents of the healing art had been ineffectual, blistering, electricity, aconitia, and the progressive series of narcotics and anodynes, which generally terminate with the morphine habit. One of the patients had suffered from morphine inebriety for a year, but had recovered from that with her supraorbital anguish unassuaged. I found that ten to twenty per cent. solutions of cocaine on the anode gave absolute relief in these cases for from four to ten or eleven hours, and without constitutional effects of any kind. A deep analgesia was produced in the area covered by the anode. No doubt constitutional effects would ultimately result by indefinite continuance of the application.

Since that time I have made it a point always to use the cocaine solution in any sort of superficial pain in which I think the anode to be of advantage. The method does not mitigate neuralgic pains which owe their origin to lesions far back of the point to which the electrode is applied, as in disease of the Gasserian ganglion, or the idiopathic neuralgias of central origin; and it is here that cocaine cataphoresis has an actual diagnostic significance. If the pain is relieved by the treatment, the lesion is in the immediate neighborhood, or peripheral to the anæsthetized area, and this would furthermore suggest the possibility of permanent cure by neurectomy. This idea of the diagnostic value of cocaine cataphoresis is Dr. Starr's, and it has some sort of corroboration in a case of intense supraorbital neuralgia which I lately saw with him. A 20 per cent. solution of cocaine used with a strong current for a considerable period of time did not diminish the paroxysms of pain in the least. A few days afterward neurectomy was performed, and this also had no effect upon the neuralgia.

Cocaine employed in this way does not *cure* neuralgias of peripheral origin. All that is claimed for it is

[1] Otto Boeddiker, pharmacist, 954 Sixth avenue, New York, makes them for my use.

that it gives relief without producing constitutional effects, and is, therefore, superior to any narcotic given internally, and to any other local application.

Other local anæsthetics are chloroform, aconitia, onabain, strophanthin (Arnaud's), helleborin, menthol, and carbolic acid.

Chloroform causes a dermatitis, and should be used only when counter-irritation is desired in conjunction with a transitory anæsthesia. I have employed chloroform cataphoresis in one case of cervical neuralgia with good effect. Helleborin and aconitia I have also used successfully, but the latter, while it gives rise to a deep analgesia, also causes painful smarting and burning, unless combined with a cocaine solution.

While my experience with the method has been chiefly in neuralgias of superficial nerves, I have not failed to give it a trial in other conditions where it seemed to be expedient. I have been using cocaine and helleborin with the anode in two cases of tic convulsif of late, placing the electrode over the trunk of the facial or one of its branches. Whatever may be the explanation of its effect, these cases certainly show very great improvement, and a remarkable diminution of the spasm after each application, such as was not obtained from the employment of the electric current alone. In a case of blepharospasm, cocaine cataphoresis practised near the outer angle of the eye produced a very marked change in the extent and frequency of the movement. I have no doubt, however, that the results would be better still if we had some drug to use with the anode which would act upon motor nerves in the same way as the local anæsthetics act upon sensory nerves; if, in other words, we had some trustworthy local paralytic. Atropia and curarin do not seem to answer the purpose.

There can be no doubt that the effects of the galvanic current upon nutrition are in part due to the cataphoretic transfer of molecules of protoplasm and liquid from one cell to another, or from a cell to a capillary vessel in the path of the anodal stream, and since the diffusion takes place more readily and more quickly in direct proportion to the current strength, it behooves us to employ as many milliamperes as feasible in our galvanization of the atrophied and paralyzed extremities of poliomyelitis, chronic neuritis, and peripheral nerve trauma. Moreover, there would seem to be a possible advantage in the use of nutritive emollients in conjunction with the labile application of the anode to the atrophied member, just as they have been combined from time immemorial in the exercise of the aliptic art (massage.)[1]

As a last word let me say that while the constant current has proved so useful to the medical profession for diagnosis, for stimulating nerve and muscle, for electrical endoscopy, for cauterization, we must not neglect its cataphoretic property, by which remedial agents are diffused through the tissues and fluids of the body to improve nutrition, to produce anæsthesia, to relieve pain, to destroy germs, to modify morbid processes, and to make soluble chemical combinations with deleterious substances which frequently collect in the organism.

ALABAMA has amended her Medical Registry Act by another that provides a penalty for non-compliance with the provisions of the former.

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[1] The Aliptic Art. By Frederick Peterson, M.D. *Philadelphia Medical News*, August 11, 1883.

Society Notes.

THE PHILADELPHIA ELECTRO-THERAPEUTICAL SOCIETY.

PRESIDENT, M. W. GRIER, IN THE CHAIR.

THE Society met at 1531 Spruce street, on Thursday, February 12, 1891, at 8 P.M.

The main feature of the evening was the reading of a paper by Dr. Frederick Peterson, of New York, entitled "The Introduction of Drugs into the Human Body by Electricity." (See page 232.) At the conclusion of the paper, Dr. Massey, remarked that we were under great obligations to Dr. Peterson for his able and interesting paper, read this evening before this Society, and moved that a vote of thanks be extended the doctor as an expression of our appreciation, which was unanimously carried. The following discussion was then had upon the subject presented in the paper.

DR. MASSEY thought that we ought to discriminate between the efforts of chloroform upon the tissues as applied under a watch glass, or by means of the galvanic current. He had used the iodide of potassium very little, but had generally applied it by the negative pole. He does not see how complex alkaloids are made to penetrate the skin. He had used a 4 per cent. solution of cocaine in the vagina with a current strength of 150 ma., but no relief was experienced from the pain. He used, however, alternating currents, followed by anodal diffusion. Had also used large abdominal applications of cocaine, with 150 ma., in which he thought there was benefit. Voltiac alternatives were also used in this case, but without shock.

Why not use the cathode with all the alkaloids?

DR. GRIER. His experience with cataphoresis was very limited. Had used a 4 per cent. solution of cocaine, also chloroform with the anode, 25 to 75 ma., for two to three minutes, in painful knee joints. In one case of painful knee joint he noticed a curious effect, no drug being used. With the anode at the knee, and the cathode at the foot, no relief was obtained, but with the cathode on the thigh the pain was overcome in a short time. He had noticed other cases, in which the reverse (or ascending current) gave relief, when the descending current increased the pain.

DR. REDDING thought the effects were solely due to polarization in such cases.

DR. WALLING. I have administered various substances in the manner indicated, using a carbon electrode, with a hard rubber band as an insulator, and in order to prevent the carbon from becoming charged with the medicament it is thoroughly saturated with hot paraffine before being used. I treat all my carbons in this way. Regarding the method so ably and fully presented by Dr. Peterson, I desire to present a different view as to the action of the poles of a galvanic series upon some of the substances named. It has been my practice and teaching that the chemistry of the poles, and the substance used, should bear the proper relation to each other.

For instance; Dr. Peterson uses the anode with all his drugs, while I use it as follows: For all substances, such as the hydrochlorate of cocaine, the morphine salts, quinine salts if used, aconitia, hyoscyne, and in fact all the alkaloids, or when I wish to introduce the *base* into the tissues I use the anode, but for all drugs, where it is not the base, but the sub-

stance that takes the place of an acid, that is desired, I use the cathode. For instance; all of the iodides, iodine, iodol, the bromides, if used, etc., etc., should be applied with the cathode. I have here some hard coagulated egg albumen; also a solution of the iodide of potassium in water. I now place a piece of absorbent cotton, well wetted in the potash solution upon a negative carbon, and the white of egg upon that, and a small piece of cotton wet in water upon the albumen. Upon the latter, or neutral cotton, I now place the positive carbon, and having a current strength of about 30 ma. you soon notice the characteristic color and odor of free iodine. It has traversed the hard, dense albumen, and appears at the positive pole. If now I reverse the poles, the iodine will be driven back to its source. You cannot get such effects by using the anode. The iodine will collect at the anode and stay there.

DR. MASSEY. I believe that you have iodide of potassium driven into the tissues with both poles, the iodine only showing at the poles.

DR. WALLING. Not so. We must remember that we are now dealing with a dead animal substance, incapable of taking up and appropriating a drug differing in this respect from the living cell in the human body. Then, too, there are the various substances entering into the formation of the tissues which must be taken into account. I hold, gentlemen, that we must remember the chemistry of the substances with which we are dealing, and act accordingly.

DR. PETERSON, in closing the discussion, said that he was glad to have gained some new points from the members of the Philadelphia Society, and among them were the use of the carbon electrode after its being treated with hot paraffine, and the possible employment of the cathode with certain drugs. While he had always borne in mind the relations of the anions and kations to either pole in electrolysis, he thought that in the cataphoretic action we had to do with another and considerably different power. Dr. Walling had beautifully proven the transmission of iodine through coagulated albumen from the cathode to the anode, and Dr. Peterson acknowledged that this showed the tendency of the ions to appear upon the poles, even at a distance, where there was no membrane in the way, but it did not disprove the fact that iodide of potash appears in the urine shortly after its diffusion by the anode through the skin. Electrolysis was not necessary to cataphoresis in his opinion. He did not believe that chloroform was decomposed when used upon the anode, and that a certain part had a tendency to go to the cathode, nor did he believe the alkaloids were decomposed unless possibly when used in combination with acids. Another point to be borne in mind was that experimenting with coagulated white of egg was different from the osmosis which takes place through membranes. We all know how readily boiled white of egg takes up by mere diffusion colors upon the outer shell, as in Easter eggs. It would be important to know how readily and quickly the iodide of potassium solution penetrated the albumen in this experiment, and he did not think diffusion by the cathode as yet a proven fact, but he confessed that there certainly seemed much to study and much to learn yet with regard to electric cataphoresis, and he was glad of the honor and opportunity of presenting his ideas and learning those of others. Adjourned.

ONE hundred and eleven new doctors graduated from the University of Nashville, February 27.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DR. G. E. DE SCHWEINITZ read a paper on

THE TREATMENT OF CORNEAL ULCERS BY THE ACTUAL CAUTERY.[1]

AS long ago as 1873, Martinache, of San Francisco,[2] recommended the application of the actual cautery for the treatment of hypopyon keratitis, and about the same time Samelsohn[3] advocated the galvanocautery in affections of the lachrymal apparatus, conjunctiva, and ciliary border, a method which, before that time, in the hands of Middeldorpf, Bruns, Althaus, Groh, and other surgeons, had proved its value in a variety of types of special practice. Actual cauterization of the cornea later received the earnest recommendation of Gayet, Grandmont, Martin, and Fuchs, but at first did not meet with universal approval. Subsequently the results published by Nieden, Schweigger, Knapp, and Gruening, placed the method upon so secure a basis that the actual cautery has become a well-nigh indispensable instrument in the management of certain types of ulcerative keratitis, and is a surgical procedure constantly employed by every practical ophthalmic surgeon. A certain amount of difference of opinion exists as to the character of cases to which the heated point of either a galvano or thermo-cautery should be applied, although there is practical unanimity among all who have had any experience, that the actual cautery is the best radical destroyer of the sloughing tissues found in ulcers of mycotic origin typified by the serpentic ulcer of the cornea; or, in the language of Dr. Gruening: "In the incipient stage of ulcus corneæ serpens, characterized by the superficial arc of propagation, the actual cautery fulfils all the requirements of a classic procedure, acting *cito, tute et jucunde*." In the hands of others the use of the instrument has not been limited strictly to serpentic ulcers, but also, as in Nieden's observations on more than one hundred cases, in addition to serpent and rodent ulcers, in scrofulous abscess both marginal and central, vesicular keratitis, with a patch of infiltration at its apex, parenchymatous corneal abscesses occurring in trachoma, and even examples of xerosis of the cornea. Enough has been said to emphasize what is well known, that the method is among the most suitable of these employed to check the spread of local infections in sloughing ulcers, and it remains to add to the numerous reports upon this subject the few cases that I have treated with my own hand, about thirty in number. These include:

1. Small central ulcers in children of bad nutrition, which either through neglect or imperfect treatment have tended to form an abscess.

2. Shallow central ulcers in scrofulous patients, the ulcer having a slightly turbid base, very chronic in its course, and declining to heal under ordinary remedies; in all of the cases of this character there were the appearances of former granular lids, and in one active trachoma.

3. Phlyctenular ulcers, beginning in the form of small pustules at the corneal border, speedily ulcerating and surrounding themselves by a yellow area of infiltration, and with a strong tendency to perforate.

4. Infecting or sloughing ulcers associated with pus in the anterior chamber, or, in other words, hypopyon keratitis.

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[1] Read February 11, 1891.

[2] *Pacific Medical and Surgical Journal*, 1873.

[3] *Archives of Ophthalmology and Otology*, vol. iii., Part 2, p. 124.

5. Marginal ring ulcer, or that form which is sometimes seen in purulent ophthalmia, occurring just at the circumference of the cornea, often covered up by the chemotic conjunctiva, and very likely to perforate, because it is hidden by the swollen tissues and not observed.

6. Herpes of the cornea, one being an example of an ulcer associated with herpes zoster ophthalmicus, and the other true herpes of the cornea in which a vesicular eruption occurs, breaks down, and leaves an ulcer; that form which has been seen under the same circumstances as when herpes occurs around the lips and nose.

I will not give the clinical history of these cases, as it would simply burden the communication unnecessarily with detail, except to say that the actual cautery was applied only after other treatment had been used, either at my hands or at the hands of some one else. I have not a single bad result to record. In three of the cases perforation of the cornea took place, with evacuation of the aqueous humor, twice as an accident during the application of the cautery, and once when the ulcer had nearly perforated and Descemet's membrane had bulged forward, forming its floor, and I deliberately burned through the tissue. In the cases of hypopyon keratitis perhaps it would have been wise, as Nieden has recommended, to have perforated the cornea with the thermo-cautery, but as they were the first ones in which I performed the operation I did not wish to do this; in the second place, the hypopyon was not of great extent, and in the third place, I wanted to see whether the application of the cautery to the surface of the cornea alone would produce absorption of the pus.

Method of Application.—Various forms of cautery have been employed, the most suitable being a small Paquelin thermo-cautery, or the galvano-caustic loop, the latter in the form devised by Prof. Sattler, of Erlangen, is, according to Nieden, especially satisfactory. My experience has been entirely with more crude instruments, but which have answered the purpose, either a delicate probe suitably made of platinum, according to the recommendation of Gruening, or if this is not at hand, an ordinary steel needle, about the size of a knitting-needle. According to the situation of the ulcer, and according to the condition of the iris, the eye is either atropinized or eserinized, a few drops of cocaine are instilled to produce anæsthesia, and a Bunsen burner is placed adjacent to the head of the patient, the probe is heated red hot, transferred to the point of disease, all of the sloughing material gently but thoroughly cauterized, and without undue pressure. It is not necessary to separate the lids with a stop speculum; in fact, this is probably a disadvantage, putting some pressure upon the ball of the eye. They may be parted by the hands of the operator himself, or, if he is to be trusted, by those of an assistant. In restless young children, although not necessary, it is safer to induce general anæsthesia simply for the purpose of securing perfect quiet. After the application, the eye may be washed out with solution of boracic acid, a drop of atropine instilled, and a bandage applied. This latter procedure also is not required, but it has seemed to me to make the patient more comfortable. Quite commonly, on the next day the bulbar conjunctiva is considerably injected, the eye looking angry and red. If the cautery has been applied properly, the ulcer itself is cleaner and healthier, the surrounding cornea less nebulous, and if there has been pus in the anterior chamber this, in my very limited experience, has been absorbed, or nearly so. Usually, one application is sufficient, but it is well known this may be repeated on the third or fourth day, and, indeed, several times repeated, according to the indications, provided the original destruction of tissues has not been sufficient. I have never applied the cautery more than three time to the same ulcer.

Subsequent Treatment.—If the case has been successful, and it is not necessary to reapply the cautery, the treatment becomes simply that of an ordinary corneal ulcer, which has been converted from a sloughing process, or from a chronic process, or from a process which relapses, into a healthy ulcer, into an ulcer with the impulse of an active stimulation, or into an ulcer with the tendency to relapse removed.

The Question of Scars—It has been urged against the employment of the actual cautery, that a much more dense scar or leucoma was likely to form than when the ulcer was treated in the ordinary way. This, in the experience of the best ophthalmic surgeons, is a mistake. In my limited series of cases it certainly has never occurred that the resulting scar was greater than would have occurred had the cautery not been used; and I am strongly convinced that in every instance the scar was smaller than would have been the case had I not employed this agent. Touching this point, the following quotation from Fuchs[1] is *apropos:* "On the cauterized spot an opacity always remains, but as one cauterizes only that spot which without this would meet with the ulcerous disintegration, the final opacification on account of this will not be greater than it would have been in the first place." As I have just said, in the belief of many, it will not be as great.

In one example of central corneal ulcer going on to the formation of an abscess, after two cauterizations, in the second one of which I perforated the cornea, and in which cure took place in less than two weeks, although the original disease had been running on for several months in the form of a series of relapses, the ultimate vision was $\frac{20}{L}$ in spite of the nearly central situation of the disease. In the case of true herpes of the cornea, where a single application of a button cautery, very lightly applied, checked a process that began in September, and was active at the end of the following December, the result was only a faint diffuse haze over the center of the pupillary space, which, by the correction of an astigmatism of a half dioptric, yielded a slightly clouded vision of $\frac{20}{xx}$. In a case of nearly central ulcer of the cornea with unhealthy margins, associated with phlyctenula around the margin, which had relapsed a number of times, in which the photophobia was very great, and the brow pain severe, and in which good healing took place twenty days after the application, the resulting scar consists of a whitish band running diagonally across the pupil space, with a few old vessel channels traceable from it to the margin, and scattered through it several minute, white saturated spots, the vision is $\frac{20}{0}$, and one and one-half meter print can be read.

Contra-indications.—In very extensive ulceration, involving a large area of the cornea, I would not use the actual cautery, certainly not until I had tried all other means, because, in order to make it effectual and to stop the sloughing process, the application would have to be so great as to lead to the possibility of an excessive reaction. It should be remembered, however, that in just such cases very good results have been obtained. I have had no personal experience. The actual cautery should not be applied

[1] Lehrbuch der Augenheilkunde, p. 169.

to an ulcer which has already perforated, and to the margins of which the iris has become adherent. Some cases of this character are on record, in which a destructive inflammation, with subsequent loss of the eye, has been occasioned by the traveling back of the inflammation from the inflamed stump of the iris. The actual cautery does not seem to me to be indicated in those cases of hypopyon keratitis in which there is a large ulcer associated with a hypopyon that nearly fills the anterior chamber, and in which it can be demonstrated that the collection is exceedingly tenacious, having assumed the character of a slough. Here Saemisch's operation would seem to be the better; because, after its performance a delicate forceps can be introduced, and the offending material bodily removed, or it can be washed out, preferably with the admirable syringe devised by Lippincott, of Pittsburg. As Gruening aptly has said: "In these cases a combination of the two methods appears to be rational, for the actual cautery destroys the septic material of the cornea, and the Saemisch section removes the septic material from the anterior chamber." The actual cautery should not be used simply because there is a corneal ulcer. It is applicable especially to sloughing ulcers, to ulcers in which the spread of local infection is the dominant symptom, to ulcers which decline to heal under more moderate means, like the bichloride of mercury method, especially advocated by our fellow-member Dr. Jackson, the use of eserine, which has been ably insisted upon by Dr. Hansell, with whose conclusions I am in entire accord, or the use of milder cauterizations with solutions of nitrate of silver, or powdered iodoform, or scraping the base of the ulcer with a small curette. Touching the limitation of the suppurative process in sloughing ulcers, Mr. Brudenell Carter somewhat enthusiastically says: "The most potent medicinal agent for the fulfilment of the first indication is eserine, which has been the means of saving numbers of eyes which without it must have perished."

Agreeing thoroughly with this author's estimate of the value of eserine, not only in sloughing ulcers, but in a host of other forms of corneal disease characterized by solutions in its continuity, we may say that in the event of the failure of this drug, and other well-recognized treatments, the actual cautery, in its power to limit suppurative processes, "has been the means of saving numbers of eyes," and with reasonably good vision, which without it might have perished.

Discussion.—Dr. Edward Jackson: My experience with the actual cautery is comparatively small and somewhat removed in point of time. It is nearly four years since I last used it. Though I recently had a case in which I seriously questioned whether I should not have used the actual cautery in addition to the Saemisch operation. I am convinced that heat is the only antiseptic which will penetrate as far as the tissue is involved in cases of corneal suppuration. But wherever it does penetrate to destroy the septic material, it also destroys corneal tissue; and my experience has been that scraping away of the softened surface, with some pressure on the deeper portions, a method of securing thorough drainage to the tissue, with the use of mercuric chloride solutions, have been sufficient to check the process in all cases in which I have tried it. Still there can be no doubt about the efficiency of the cautery. If but a single application can be made, it is probably the most certain means of arresting suppuration. Where, however, the case can be watched, the scraping repeated as soon as necessary, and constitutional treatment adopted, with the use of eserine, which certainly has an action on the nutrition of the cornea, I think that suppurating ulcers can be cured with at least as little subsequent opacity as with the cautery.

Dr. Charles H. Thomas: I have not employed the actual cautery, but I have found that thorough wiping of the ulcers and touching with the solid stick of nitrate of silver, have answered well. In the early stages the insufflation of calomel will do, but later something more decided is required.

Dr. Samuel D. Risley: I have not used the actual cautery in the treatment of corneal ulcers; not, however, from any lack of confidence in its merits, since it receives the commendation of so many skilful observers. My treatment of this serious form of disease has been more conservative. It is probable that the cautery is useful as a rapid and effectual means of destroying the disease germs in the tissue. This I have sought to do by washing the ulcer thoroughly with moderately-strong solutions of bichloride of mercury, and following it with a saturated solution of nitrate of silver, applied by means of a very small pledget of cotton on a fine-pointed cotton-carrier. By this means the action of the silver upon the tissue can be confined to the desired area much better than when applied in the form of the solid stick.

Excellent results seem to follow this procedure, but I have frequently been sorely disappointed. Since hearing Dr. de Schweinitz's careful and interesting description of this dangerous form of eye disease, and the exceedingly good results following the use of the actual cautery in its treatment, I am resolved to resort to it in the future, and cannot but feel that in some of the disappointing results in the past the cautery might have secured a more favorable outcome.

Dr. George E. de Schweinitz: The actual cautery should not be used, as a rule, until the ordinary and milder methods have been employed. In some instances, without the previous administration of other remedies, I have touched the point of ulceration with the actual cautery used as an active stimulant and very lightly applied, as, for instance, in the shallow central ulcers associated with chronic trachoma, and believe that under this treatment they have healed more rapidly than they would have done by other means. If the actual cautery is applied carefully, and not, as recommended in some text-books, beyond the edge of the ulcer and into the healthy tissue, and only that portion of the structure burnt which would be destroyed by the process of disease, there will be no more opacity of the cornea than if it had not been applied. In certain types of infecting ulcers, with a creeping tendency, it seems to me there should be no delay in the employment of this most potent remedy.

Dr. William H. Morrison read a paper on

Severe Puerperal Eclampsia—The Immediate Induction of Labor; Recovery.[1]

A brief examination of the volumes of the *Transactions* of this Society for a number of years past, shows that among the varied subjects presented for discussion, that of puerperal convulsions has been wanting. It is especially important that in an affection like this, which in the majority of cases comes suddenly and without warning, the practitioner should have a definite idea as to the proper treatment, that he may be prepared to act promptly and efficiently. It is with the desire of bringing this subject before the profession, and with

[1] Read February 11, 1891.

the hope of inciting a full and thorough discussion of the etiology and management of this serious malady, that a brief report of a recent case is presented.

Mrs. X., aged twenty-two years, married nine months, and pregnant for the first time, called on me January 1, 1891, with the request that I attend her in her confinement. She was pregnant seven and a half months, had been in perfect health, and had not suffered with sick stomach or other ailments common to her condition. She stated that she had never felt better in her life until within a few weeks previously, when her kidneys had begun to trouble her. During the day she was obliged to pass water frequently, and at night had to get up twenty or thirty times to urinate. The water passed was said to be thick and muddy. She brought a specimen with her, which on examination was found to contain one-half its bulk of albumen. Microscopical examination failed to reveal tube casts. She was given a mixture containing tincture of digitalis and bromide of potassium, and requested to bring another specimen of urine in the course of a week. I might state at this point, that one or two years previously I had examined the urine of this patient and found it normal.

At six o'clock the following evening, January 2, the mother of the patient came, stating that her daughter was suffering with headache, and asked that something be given to relieve it. Five grains of antipyrine were ordered, with instructions to return in two hours if the headache was no better. At the same time, I told the mother that owing to the state of the kidneys there was a possibility that convulsions might occur, and that if the condition of the urine did not speedily improve, the advisability of inducing premature labor would have to be considered. I heard nothing more from the patient until 2 A.M., eight hours later, when I was summoned with the statement that she had a convulsion. I found that she had had two severe general convulsions in which she had bitten her tongue, but when I saw her she was quiet and semi-conscious, and soon after roused sufficiently to recognize those about her. She was given ten grains of Dover's powder, which was swallowed readily. A specimen of the urine which had been passed at eleven o'clock the previous evening was secured, and found to contain over one-half its bulk of albumin. I regret to say that the specific gravity was not noted. No tube-casts were found. At this time I informed the family that in the morning I would call Dr. H. A. P. Neel, of Tacony, in consultation, and if he approved, would at once induce premature labor. To this proposition prompt consent was given. From this time until 8.30 A.M., when Dr. Neel saw her with me, she had at least four convulsions, and in the intervals there was a constant tendency to muscular twitching. Dr. Neel agreeing as to the propriety of bringing the pregnancy to an end as speedily as possible, the vagina was irrigated with a bichloride solution and an Engligh flexible catheter, the openings of which were closed with wax, and which had been soaking for an hour in a bichloride solution, was introduced its entire length between the membranes and the walls of the uterus, care being taken not to rupture the membranes. The os was found dilated sufficient to admit one finger, and the head was presenting. A bichloride tampon was then placed in the vagina. Two ounces of a dark, chocolate-colored urine were withdrawn with the catheter.

From this time the patient was under constant observation. There was a tendency to the recurrence of the convulsions, which were only prevented by the administration of ether. The anæsthetic was not given continuously, but only when the twitching of the eyelids, or of the muscles of the fingers, showed that a paroxysm was imminent. By this means the majority of the spasms were averted, although several did occur. While waiting for labor to begin, not having pilocarpine at hand, I injected ten minims of fluid extract of jaborandi hypodermically, and in the course of thirty minutes injected twenty minims more. This produced free sweating and salivation. During this time the patient remained in a practically unconscious condition. About one hour after the introduction of the bougie, labor pains began to manifest themselves and were evidently felt, at least to a certain extent, by the patient, as was shown by her restlessness when the uterine contractions occurred. After the pain had continued an hour and a half, the vaginal tampon was removed, and it was found that the os had dilated to a diameter of two inches. The bougie was then removed and the vulvar orifice carefully dilated to an extent readily admitting the hand, and the os was stretched digitally until sufficient dilatation for the application of the forceps was secured. The membranes were then ruptured, the Hodge forceps applied and efforts at extraction cautiously made. The child was delivered without any tear of the cervix or of the perineum, five and one-half hours after the introduction of the catheter and three-fourths of an hour after the application of the forceps. Although the labor was a comparatively easy one, and not of long duration, the child was dead, and probably had died in some of the earlier convulsions. The uterus contracted well and the placenta was delivered without difficulty. During the labor no convulsions occurred, ether being given in sufficient quantity to quiet restlessness. Immediately after labor she had two spasms, apparently the result of the disturbance produced by removing soiled clothing and changing her position in bed. She then became much quieter; the muscular twitchings entirely ceased, and the use of the anæsthetic was suspended. The administration of chloral was now begun, first by the rectum, but as the patient swallowed readily, and as the injections caused some irritation, it was later given by the mouth in fifteen-grain doses, repeated every two hours. In all, about seventy-five grains of chloral were administered. The patient was also given water in small quantities at short intervals.

The axillary temperature immediately after delivery was found to be 104.2°. Cold was therefore applied to the head, and the body sponged with tepid water every half hour. This was followed by a steady fall of temperature, until at midnight the normal had been reached. At 5 P.M., the catheter was introduced and an ounce of dark, thick urine withdrawn. The use of the catheter was followed by two convulsions. At this time ten minims of the tincture of digitalis were administered subcutaneously, and the remedy continued by the mouth in five-drop doses every two hours. During the evening the convulsions recurred at intervals of two or three hours, occurring as a rule in groups of two, the last one appearing at midnight, and being comparatively light. The free administration of water by the mouth was continued during the night.

The patient rested quietly through the night, without any twitching of the muscles, but did not regain consciousness. At 5 A.M. there was a copious discharge of urine in the bed. This was repeated twice during the day, but by evening she had regained consciousness sufficiently to used the bed-pan. Ex-

amination of the urine then passed showed that it contained one-sixth its bulk of albumen, but the microscope failed to reveal tube-casts. During the day (January 4) she could be roused, and when spoken to would open her eyes, but not reply to questions. Skimmed milk was given in small quantities, frequently repeated, and the digitalis continued. The administration of chloral had been stopped the previous evening. Calomel in one-sixth grain doses was ordered to be repeated every hour until the bowels were freely moved. The mental power steadily improved until, by the evening of January 5, she appreciated questions addressed to her, and replied to them intelligently, although the brain had evidently not yet resumed its normal condition. From this time forward the progress toward recovery was steady and rapid. The urine passed January 11 had a specific gravity of 1028, and contained one-fourth its bulk of albumen. No tube-casts were found, but there were many blood-corpuscles, and it is probable that a large portion of the albumen was due to the admixture of blood from the uterus. Examination of urine passed January 19, showed a specific gravity of 1020, and complete absence of albumen. February 10, the urine had a specific gravity of 1028, an acid reaction, and contained no albumen.

Among the interesting features in this case are, (1) the sudden appearance of convulsions in a person who had been apparently perfectly well, with no evidence of nervous trouble until a few hours previously; (2) the almost complete suppression of urine for over twenty-four hours, no urine being passed from 11 P.M. Friday until 5 A.M Sunday, with the exception of three ounces withdrawn by the catheter; (3) the steady and rapid improvement that followed the emptying of the uterus. The total number of convulsions was between twenty and twenty-five, extending over a period of twenty-two hours.

The exact etiology of puerperal convulsions has not yet been positively determined. The majority of authorities agree that they are due to a toxæmia, the result of interference with the action of the kidneys, but the precise toxic agent has not been determined, nor has the manner in which the disturbance of the kidneys is brought about been agreed upon. Some hold that the interference with the function of the kidneys is due to pressure of the enlarged uterus upon the abdominal veins; others, that it is due to pressure upon the kidneys themselves, or upon the ureters; while in a recent paper,[1] Dr. James Tyson advocates the view that this interference is the result "of the irritant effect upon the renal cells of some toxic substance in the blood, the precise nature of which is unknown, but which probably represents excrementitious substances from the mother and fœtus." Whether we accept the view advocated by King, that the renal congestion and inflammation is the result of pressure upon the inferior vena cava and iliac veins, or that of Halbertsma, that it is due to pressure upon the ureters, or that of Tyson, that it is due to the presence of excrementitious matters from the mother and fœtus, we find that in each of these theories an essential factor in the production of the renal derangement is the presence of the fœtus. Therefore, the primary indication in the treatment of puerperal convulsions prior to delivery is the speedy termination of pregnancy. While by venesection, the administration of ether, chloroform, chloral, veratrum viride, and the like, we may control the paroxysms, it is only by the removal of the cause which has produced and is continuing the renal congestion and inflammation, that we can expect to restore the functional activity of the kidneys, on which depends our only ground of hope of removing the deleterious matters circulating in the blood. Where the convulsions occur after the period of viability, this treatment also affords the best chance of saving the life of the child, for it is generally admitted that, as a rule, death of the fœtus occurs early in the attack.

While measures calculated to induce labor are practised, the convulsions should be controlled as far as possible by the use of ether, chloroform, chloral, veratrum viride, and similar agents. The action of the kidneys should be encouraged by the free administration of water by the mouth or rectum, and the renal function should be supplemented by free diaphoresis and catharsis.

In considering the treatment of these severe cases, one other point presents itself—what shall be done where the case is desperate, and where contractions of the uterus are not readily induced? It seems to me that where the effect of the poison on the system is profound, where the convulsions are violent and frequent, where the suppression of urine is practically complete, where there is no prospect of the rapid induction of labor, or where the efforts to bring on labor excite convulsions, the question of removal of the fœtus by abdominal section should be seriously considered. Such a course would, in a few minutes, remove an important causative factor in the production of the disease, afford a better opportunity for the action of remedies intended to control the paroxysms, to stimulate the action of the kidney, and to favor the excretion of poisonous matters, and probably give, both to the mother and to the child, the best chance for life.

Discussion.—Dr. Reynolds Wilson: I wish to say but a word, and that is with reference to the use of morphine in the treatment of puerperal convulsions. I recently had the opportunity of seeing a typical case of eclampsia treated in this way in the clinic of Prof. Winckle. The patient, a primipara, supposed to be at the eighth month, was admitted to the hospital in a delirious and semi-comatose condition at 9 P. M.; between this time and 4 A. M. she had four convulsions. She was treated with large doses of morphine by hypodermic injections. Chloroform was also used. When first admitted the os would admit two fingers. At 2. P. M. labor came on, the second stage lasting only half an hour. The child was living, and lived for thirty hours. Prof. Winckle advocates and practises the hypodermic injection of morphine in these cases, in doses of ½ grain, repeated in from four to seven hours, and continued until 3 grains in all have been given.

Dr. William S. Stewart: I was much interested in the paper, and especially in the description of the treatment of this particular case. I, however, rather feel like taking exception to the suggestion made in the latter part of the paper, that is, in regard to the performance of abdominal section. I think that it is possible to control these convulsions by large doses of chloral, given at first by the rectum and afterward by the mouth, if that can be done. I have had a number of cases of puerperal convulsions, and have had no difficulty in controlling them since I have learned that a certain dose of chloral will control the convulsions for a specific time. One drachm of chloral injected into the rectum will control the convulsions for about one hour and a half, almost to the minute. At the end of that time I am prepared to

[1] *New York Medical Record*, January 3, 1891.

repeat the injection, if necessary. That quantity of chloral will control the convulsions in ten seconds. The effect of the injection is to produce profound sleep.

I have also experimented with the use of chloral in the albuminuria of the pregnant state. I had to remain in the city one entire summer, on account of one case where the family were so obstinate that they would not permit me to bring on premature labor when the child was viable. The patient was a primipara, with almost complete suppression of urine. The albumin was so abundant that the urine coagulated into an almost solid mass on boiling. I predicted convulsions, and insisted on bringing on labor; but to this the mother would not consent. I tried various remedies, with no effect upon the action of the kidneys. She began to have feelings of twitching, etc., and I put her on small doses of chloral. To my astonishment the albuminuria began to diminish, and the quantity of urine was increased. Her condition steadily improved, and I succeeded in getting her through without a convulsion.

In my first experience with puerperal convulsions, fifteen or twenty years ago, I used morphine by hypodermic injection; but when I recall the difficulty I had in bringing this patient through, and the severe injuries to the tongue, which did not heal for weeks, I consider this a poor method, although it is recommended by so high an authority as Winckle.

DR. WILLIAM H. WELCH: I do not propose to take up the time of the society; but I want to mention that not long ago I came across one of these cases. Chloral was employed very freely, and during the convulsions chloroform was administered, and delivery accomplished with the forceps as speedily as possible. In spite of all that could be done, the patient rapidly became comatose, and died. I think that in this case chloral was used as freely as was safe. This is an instance where chloral did not save the patient.

MEDICAL AND SURGICAL SOCIETY, OF BALTIMORE.

Stated Meeting held January 8, 1891.

THE Seven Hundred and Eighteenth Regular Meeting was called to order by the President, Dr. H. T. Rennolds. Dr. Arthur D. Mansfield was elected to membership.

DR. GEO. J. PRESTON read a paper on

THE DIFFERENTIAL DIAGNOSIS AND TREATMENT OF PERIPHERAL NEURITIS.

DR. F. C. BRESSLER said he had seen a few cases. The first case was that of a woman who was brought into the City Hospital in 1885. She was thought to be drunk at the time she was brought in. She had the wrist-drop and foot-drop; had pain in the ankle and along the tibia. The muscles were atrophied, and at the time a diagnosis of poliomyelitis in the adult was made. She stayed at the hospital for one month, when she was sent to Bay View. Another case, of Dr. Spicknall's, of a saleswoman, who, all at once, was attacked by wasting of the hands, arms, and shoulders. Under massage and strychnine she has recovered. In regard to children, he saw a girl of seven years who was attended by himself and Dr. Chambers for catarrhal pneumonia. She was getting better, when suddenly the muscles of her hands and arms began to waste; she had pain in the course of the nerves; the tendon reflex was entirely gone. Under massage and strychnine she also recovered. These cases are hastily gone over to bring out the differential diagnosis between peripheral neuritis and poliomyelitis. Peripheral neuritis is comparatively a new subject; it was brought to the attention of American physicians by Dr. M. Allen Starr, of New York, in the Goldsmith lectures.

DR. J. W. CHAMBERS said peripheral neuritis is a more common disease than it is usually thought to be. He knew of two cases of attempted suicide by taking arsenic; they did not succeed in committing suicide, but they did succeed in getting a peripheral neuritis. The first case that came to his attention was six years ago. He called it poliomyelitis at the time. Since then, having learned more of the disease, when he saw a case about a year ago, he looked for and found peripheral neuritis. He thought that in a short time he would hear more of peripheral neuritis and less of poliomyelitis. He saw a case last winter, of a lady who had a retroflexed uterus, and who was pregnant. She had pains shooting down both legs, and he thought her hysterical at the time; she soon aborted. About six months after there was marked wasting of the lower extremities, and after awhile of the upper extremities also. She is much better now, and is filling up again. In peripheral neuritis there is not so marked a deformity from contraction of the muscles as in poliomyelitis; but in the case of a colored man at the City Hospital last winter, there was very marked deformity from muscular contraction. This brings us to the consideration of the value of a single symptom—so-called pathognomonic symptoms. It is said that the Argyle-Robinson pupil is pathognomonic in tabes dorsalis, but it has been observed in multiple neuritis. One pathognomonic sign is of no use unless associated with other signs, which must be taken into consideration with it.

DR. WM. H. NORRIS said he had seen several cases; one a remarkable case, six years ago, in a highly-educated lady of a very nervous disposition. She had been under his care for some time with chronic diarrhœa. She went to New Orleans for the winter, on his advice, and returned in the spring with malaria. About this time she became very nervous over some bonds which she owned. She was suddenly paralyzed, and suffered great pain. A diagnosis of multiple neuritis was made. She became much atrophied, and there was considerable muscular deformity. She died about three years ago. An idea of the degree of wasting may be formed from the fact that from one hundred and twenty-five pounds at the beginning of the attack, she was reduced to sixty-five pounds at the time of her death.

DR. G. J. PRESTON said the cases narrated go to confirm him in the opinion that peripheral neuritis is a more common disease than it is usually thought to be. It seems to be an American disease, as we do not hear much of it in Europe. This may be due to the pressure of our American civilization, or it may be because it is more closely observed, and, in consequence, is more frequently reported. Poliomyelitis will often recover, almost perfectly, and rapidly, even in cases where the paralysis is marked. It is probable, in these cases, that the large cells in the anterior horns may be affected (not destroyed) sufficiently to interfere with their functions.

DR. J. E. PRICHARD then read a paper on

THE USE OF SPLINTS IN FRACTURES OF THE LONG BONES, AND A CASE OF SOLUTION OF CONTINUITY OF THE LEFT HUMERUS AT THE SURGICAL NECK.

DR. W. S. BLAISDELL said the application of splints to fractures of long bones, as recommended by Dr. Prichard, could have but one objection to it, and that would be that a crutch paralysis might be induced by the pressure in the axilla.

J. WM. FUNCK, *Rec. Sec.*

1710 WEST FAYETTE STREET.

The Polyclinic.

PENNSYLVANIA HOSPITAL.

LONGSTRETH does not approve of milk toast, as the milk prevents the action of the saliva on the starch of the bread. He objects to it particularly as a food for convalescent "typhoids," whose secretions, especially saliva, are markedly diminished. For such cases he thinks hard-boiled eggs the best food, that is, when they are boiled long enough to make the yolk mealy. To induce appetite in patients who loath food, he recommends some delicacy of which they are particularly fond. This stimulates the glands of the alimentary tract, whose secretions are essential to proper digestion.

COOPER HOSPITAL NOTES.

THE FEMALE SILVER CATHETER.

THE female silver catheter should not, as a rule, be used, because of its liability to irritate, if not to cause an abrasion and consequent inflammation of the lining membrane of the urethra; specially is this true, if after parturition the urethra has been congested from pressure of the fœtal head. The use of the soft rubber catheter will prove far more satisfactory.—*Godfrey.*

THE TREATMENT OF COMPOUND FRACTURES.

Thorough antisepsis in the treatment of a compound fracture will often save a limb that under the older method of treatment would have been amputated. To be effective, however, antiseptic treatment must be thorough. Its application in this form of an injury affords the highest evidence of its value.—*Benjamin.*

ANTISEPSIS IN TYPHOID FEVER.

Early and persistent antisepsis of the alimentary canal in the treatment of typhoid fever will give the best results, and can be best accomplished by the use of the sub-iodide of bismuth.—*Davis.*

FRACTURE OF SURGICAL NECK OF HUMERUS.

The use of an internal splint for the humerus, in addition to a shoulder-cap splint, insures in the treatment of fracture of the surgical neck greater comfort and a better result than when the shoulder-cap splint is alone applied.—*Strock.*

MEDICO-CHIRURGICAL COLLEGE.

IN the treatment of bronchial catarrh, avoid polypharmacy. Do not combine indiscriminately the various expectorants. There is no excuse for practising the "hit or miss" method in the treatment of such cases. Stimulating and sedative expectorants are frequently so injudiciously prescribed as to have no more effect than so much water. Always ascertain for yourself the condition of the bronchial mucous membrane, *i. e.*, whether it is in a state of hyperæsthesia or anæsthesia, and prescribe accordingly.—*Waugh.*

For checking hemorrhage from the lungs there is no better remedy than digitalis, in gtt. x–gtt. xx dose, given in hot water, to promote rapid absorption. It is better than ergot in being more lasting in its effects. The degree of damage which the exuded blood gives rise to will be determined by the fever that ensues. To slow the action of the heart give aconite in 1-drop doses, in hot water, every twenty minutes.—*Waugh.*

In a case of ecthyma Shoemaker prescribed:

℞.—Aloini ..... gr. ij.
Tr. ferri chlor.,
Glycerini ..... āā f℥ij.
M.—S. ℥j t. i. d.

During a severe case of typhoid fever Waugh believes that there is a loss of a certain amount of vital force, and that practically a part of the patient absolutely dies. He has been led to this belief in observing the career of his patients after recovery from severe attacks of typhoid fever. He has found that they rarely possess the same working power they had previous to the attack. In some cases he has seen a marked aberration of the mind.

Goodman's treatment of inherited syphilis in children consists of massage and inunctions of cod-liver oil or sweet oil. Internally he gives a combination of the bichloride of mercury, arsenic, and iron, with the syrup of orange flower.

The principal element in the prognosis of diphtheria is to be found in the attending physician. If he is a believer in the strictly local nature of the disease, and in the importance of efficient and early local treatment, the chances of recovery are good. The essential elements in the successful treatment of diphtheria are: The applications should be strong enough to destroy the disease; they should be so frequently applied that the disease has not time to recover its lost ground. Ordinarily, an application every hour will answer; but in some cases it should be made every fifteen minutes. Herein lies the reason that one practitioner fails with a remedy that another finds efficacious.—*Waugh.*

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Reported by J. E. TAYLOR, M.D.

PROF. PARVIN in treating infantile leucorrhœa, directed that the cause of the trouble be sought for and removed. Wash the parts thoroughly, and use astringent injections, or a suppository of the following:

℞.—Iodoformi ..... gr. v.
Olei theobromæ ..... gr. x.

Prof. Keen at a recent clinic presented rather a rare case: The patient, a girl, aged five years, had a tumor situated on the back over the lumbo-sacral region. The tumor, which was fatty and of very large size, was removed by making an elliptical incision and dissecting it out. The tumor communicated with the spinal cord by means of a sac, and when opened into this was followed by a copious discharge

of cerebro-spinal fluid. The edges of sac were carefully approximated and the wound dressed in the ordinary way.

Prof. Parvin in lecturing to the class on flexions of the uterus, gave as a general law that anteflexions are rare in the nullipara, retroflexions are rare in those who have borne children.

Dr. J. C. Wilson presented a case at the clinic with the following history: The patient came for the relief of a severe pain in the left side, in the region of the lower ribs. It came on suddenly after lifting a heavy weight; is much worse at night. The patient otherwise was feeling well. A diagnosis of lumbago was made. The patient was ordered a teaspoonful of the elixir of quinine, iron and strychnine three times a day, with hypodermics of morphine, gr. ⅛, and atropine, gr. $\frac{1}{60}$.

Prof. Keen gave the following formula, to be used as an injection in gonorrhœa:

℞.—Zinci sulphat..... gr. xviij.
Catechu.
Matico..... ää ʒiss.
Glycerini.
Aquæ..... ää q. s. ad ʒvi.
M.—S. Inject ʒss, retaining each injection for at least five minutes.

In case of a woman, aged fifty-six, presenting these symptoms: menstruation has ceased, disordered digestion, obstinate constipation, loss of appetite, at times vomiting, a great deal of wind is constantly eructated, tongue flabby, pain in the back and left side, coming in paroxysms, and attended with great suffering; a diagnosis was made of *enteralgia*. She was treated as follows: For the pain, phenacetine, gr. ij., and—

℞.—Ext. cascaræ sagradæ..... ♏x-xx.
Mist. glycyrrh. comp..... ʒj.
M.—S. At bedtime.

℞.—Quininæ sulph..... gr. ij.
Ext. cannabis Indicæ..... gr ⅛.
M.—Ft. in pil.
S. After meals.

Prof. Keen in lecturing to the class upon fractures, gave the following differential diagnosis between fracture and dislocation of the neck of the femur.

FRACTURE OF THE NECK.	DISLOCATION.
1. Usually in old persons.	1. Generally adult, middle life.
2. Women as a rule.	2. Either sex (usually men).
3. Slight force.	3. Severe force.
4. Toes everted.	4. Toes inverted (generally).
5. Shortening.	5. Shortening.
6. If restored, displacement recurs.	6. When restored displacement does not occur.
7. Preternatural mobility (passive).	7. Preternatural immobility.
8. Crepitus.	8. Crepitus absent.
9. Slight prominence of the great trochanter.	9. Great prominence of the trochanter.

Also the following as a differential diagnosis between intra and extra-capsular fractures of the femur:

INTRA-CAPSULAR.	EXTRA-CAPSULAR.
1. Slight injury.	1. Severe injury.
2. Slight contusion.	2. Usually severe contusion.
3. Shortening increases.	3. Does not increase.
4. Feeble crepitus.	4. Distinct crepitus.
5. Leg nearly helpless.	5. Absolutely so.
6. Shorter radius of rotation.	6. Still shorter radius of rotation.
7. Pain moderate.	7. Pain severe.
8. Usually occurs in persons *over* fifty years of age.	8. Usually occurs in persons *under* fifty years.
9. In women as a rule.	9. Generally occurring in men.

Dr. Lewis Brinton presented to the class a case of fatty degeneration of the heart. The patient gave this history: He had had rheumatism, pain in the precordial region, shortness of breath on exertion, vertigo, and at times specks floating before the eyes, a very feeble, compressible pulse, the vessels showing the changes of beginning atheroma. The patient was placed upon sulphate of strychnine, a sixtieth of a grain three times a day.

In the case of a child seven months old presenting the following symptoms: The food taken passed by the bowels undigested; there was obstinate constipation; the patient also had an eczematous rash upon the face; Dr. Rex prescribed the following treatment:

℞.—Resinæ podophylli..... gr. j.
Alcoholis..... ʒj.
Aquæ..... ʒiij.
M.—S. In drop doses.

For the eczema of the face:

℞.—Acid. salicylici..... gr. x.
Adipis..... ʒj.
M.—S. Apply locally.

For a case of pharyngitis complicated with bronchitis, Dr. Brinton gave the following formula:

℞.—Ammonii chloridi..... gr. v.
Vini antimonii..... gtt. x.
Vini ipecacuanhæ..... gtt. x.
Mist. glycyrrhizæ comp..... ʒj.
M.—S. Every three or four hours.

SURGICAL TREATMENT OF GRANULAR CONJUNCTIVITIS.—Darier (*Recueil d' Ophtalmologie*) says that most of the methods employed to cure granular conjunctivitis are ultimately successful, but the time occupied in the cure is usually very long, and in many cases the cure is only temporary. This method of treatment is based upon the opinion that the trachomcoccus, which has been found and described by Sattler and Michel, is the pathogenic agent in granular conjunctivitis. This trachomcoccus should be entirely removed, and this can only be done effectually by surgical methods. He divides the operation into six steps:

1. Anæsthesia by chloroform.
2. Enlargement of the palpebral fissure.
3. Complete eversion of the eyelids, so that the whole of the conjunctival surface may be exposed.
4. Scarification of the conjunctiva, the cuts being deep, and in parallel lines to the edge of the eyelid.
5. Scraping with a Volkmann's spoon.
6. Thorough brushing and washing with a solution of perchloride of mercury (1 to 500), the whole of the scarified surface being brushed with a hard brush.

He has found this method very effectual, most of the cases treated being cured in about eight days, without the supervention of keratitis or ulcers in the cornea.—*Brit. Med. Jour.*

One of the most celebrated restaurateurs in Germany has just passed through the Bankruptcy Court, and it was discovered that among the creditors was a knacker, to whom nearly $5,000 was owing for carcasses of horses and asses. The debtor was sharply interrogated respecting this item, and he ultimately confessed that his customers had unconsciously devoured all these thousands of carcasses, being there and then under the delusion that they were eating venison.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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THE TIMES AND REGISTER,
FORMED BY UNITING THE
PHILADELPHIA MEDICAL TIMES,
THE MEDICAL REGISTER,
THE POLYCLINIC,
THE AMERICAN MEDICAL DIGEST,
PUBLISHED UNDER THE AUSPICES OF THE
AMERICAN MEDICAL PRESS ASSOCIATION.

Published by the MEDICAL PRESS Co., Limited.
Address all communications to 1725 Arch Street, Philadelphia.
NEW YORK OFFICE: No. 214 East 34th Street (Polyclinic Building).

New York and Philadelphia, March 21, 1891.

DR. WILLIAM F. WAUGH has resigned the chair of Practice and Clinical Medicine in the Medico-Chirurgical College, of Philadelphia, to take effect at the end of the present term. Dr. Waugh has been a member of this Faculty since the college first opened its doors as a teaching institution in 1881. During the first term he gave the course on Therapeutics, and was then transferred to the chair of Practice, which he has since occupied.

ST. CLEMENT'S HOSPITAL.

THE annual report of this institution lies before us. At the time it was founded, we were informed that the object was to afford a refuge for those cases that were considered undesirable at other hospitals; and were refused admission, or discharged to make room for others. These were the chronic incurables, who filled up the wards, and, themselves incapable of receiving any permanent benefit, occupied the places of others who might be cured.

This truly laudable object alone gave St. Clement's Hospital a reason for existence; for in no other sense could it be said to fill a "long felt want." If any one will take a map of the city he will see that the district surrounding St. Clement's is fully provided for, as regards free medical attendance. Beginning on the north we find the German Hospital, the Gynecean, Charity Hospital, the Medico-Chirurgical, Wills', Jefferson, the Lying-in Charity, Children's, the Pennsylvania, Howard, the Polyclinic, the Eye and Ear Department at Thirteenth and Chestnut, and now the new Methodist Hospital, all within easy reach; while across the river the University and Presbyterian are not inaccessible to any part of the parish. Nearly all these institutions have well-equipped dispensaries, with full corps of able clinicians; so that without the advent of St. Clement's, there was an actual competition among them for patients. But this new-comer has stepped in, and during the last year has managed to run up a list of 16,535 cases treated at the dispensary.

How much farther is this thing going? Where are the physicians of Philadelphia to look for their living, when the dispensaries crowd each other in a competition for the privilege of attending the sick free of charge? In the case of teaching institutions there is a valid excuse, in that it is necessary to have a supply of clinical material for the education of students. For the really poor, also, there should be ample provision. But St. Clement's is not a college, and we are credibly informed that not even the pretence of an inquiry is made into the true financial standing of those who apply for help. Meanwhile several of the physicians of the neighborhood inform us that their work has been seriously cut into by this institution.

Now let us see how far the original idea of the hospital has been carried out: that of a refuge for the chronic incurables. The only reference in this report to cases treated in the wards is as follows:

CASES TREATED IN WOMAN'S WARD OF HOSPITAL, FROM JUNE 6, 1890, TO NOVEMBER 1, 1890.

	Number of Cases.
Aortic Regurgitation,	1
Cancer of Pylorus and Pancreas,	1
Eczema of Leg,	1
Hemiplegia,	1
Intracapsular Fracture	1
Lacerated Cervix,	5
" " and Perineum,	1
" Perineum,	1
Potts' Disease,	1
Rheumatoid Arthritis,	1
Scirrhus of Breast,	1
	15

How many of these are "chronic incurables?"

From the Treasurer's report we learn that the running expenses, deducting $12,756.17 for alterations and additions to the building, amount to $4,771.48. We are given no data as to how long each of the fifteen patients remained in the hospital, but at the end of the year there were six remaining; and if this represents the average, the yearly cost of supporting each patient was $795.24, or over $15.00 per week. How much more benefit would have resulted if the $37,447 received during last year by this hospital had been added to the endowment of the Episcopal Hospital, a noble institution, under the care of the same religious denomination. Seven beds could have been endowed in perpetuity, with nearly half the sum necessary for the eighth. As it is, St. Clement's Dispensary is taking away from the neighboring physicians their means of livelihood; seriously interfering with the teaching institutions in their efforts to obtain material for clinical demonstration, and pauperizing the people, with the funds subscribed for the erection of an asylum for incurables. We sincerely hope that if the fathers return to England they will take their hospital with them.

DR. A. E. ROUSSEL has been elected to fill a vacancy on the visiting staff of Howard Hospital.

REMOVAL OF THE "JOURNAL" TO WASHINGTON.

THIS subject has been pretty thoroughly discussed from one point of view, namely, whether the interests of the *Journal* and the needs of its readers will be subserved by the proposed change. The argument stands about as follows: Drs. A., B. and C. believe the journal should be removed to Washington, because they wish it; whereas Drs. X., Y. and Z. desire it to remain in Chicago, because *their* interests demand it. Which of these parties succeeds in fortifying this principal argument by the strongest accessories in the shape of votes, will be shown at the coming meeting of the Association.

But there is another aspect of the case, which has not, we believe, received any attention. How will the removal affect the interests of Chicago?

To the present resident staff of the *Journal* this would seem a matter of course, as it would seriously incommode them to be compelled to remove to Washington. They form but a small element in the Chicago profession, however, and when we eliminate the question of personal interest, we cannot come to any other conclusion but that the removal would be a good thing for Chicago.

The *Journal* is not, and must not be, in any sense a local journal. It is national; and any attempt to make it a representative of Chicago medicine would be met with a howl of reprobation from all quarters. And yet, as the only professional journal published in that city, it blocks the way for what Chicago needs, a strong and well-supported weekly medical journal. Chicago is now the second city in this continent. Its business interests are even greater than its population, proportionately. Its physicians number over 2,000; active, progressive and cultured men. But in medical journalism it is represented by three monthlies, published by two manufacturing drug firms and one surgical instrument house. Very good journals they are, and very well edited; but is it not a disgrace that the medical profession of that city has no journal of its own, but is contented to take its literature from such sources?

If the *Journal of the American Medical Association* were to remove to Washington, there would be an opportunity for Chicago's warring cliques to unite in the production of a good medical weekly that would worthily represent the profession of that city.

Annotations.

DETECTION OF TUBERCLE IN SPUTUM.

DR. WEBER, of Berlin, sends the following to Dr. Dixon as the method adopted in the Charite Hospital, Berlin, for the detection of tubercle bacilli in sputum:

Where there is reason to believe that bacilli are present in sputum, but in very small numbers and not easy of detection by the ordinary methods, as is very often the case, the following plan has been successfully employed:

Take the whole quantity of sputum of two days, or even up to a week; add to it twice the quantity of distilled water, and to this add eight to fifteen drops of concentrated liquor potassæ. Heat slowly until the whole mass has the consistency of thick syrup. The cellular and morphological contents will be dissolved except elastic fibre.

The necessary heat must remain below 212° F. The longer you allow a lower degree of heat to act on the solution, the better the bacilli afterwards take on the carbol fuchsin stain.

After heating the thick syrupy solution, add eight to fifteen parts distilled water in a beaker, when quite a precipitate falls to the bottom.

In this way any bacilli that were in the sputum can be most readily detected.

EFFECTS OF HIGH ALTITUDES ON THE BLOOD.

A PAPER was read by Muntz before the Paris Biological Society, in which he affirms that the blood undergoes changes in those who live on the table-lands of mountainous regions. The blood adapts itself to the peculiarities of the atmosphere. The density of the blood is increased, and with it the amount of solids, of hemoglobine, and of respiratory capacity. The author had made his experiments on rabbits and sheep which were found in the peak Du Midi. Dr. Viault concurs with Dr. Muntz, and has noticed in himself, and several persons who were associated with him, a considerable increase in the number of red globules. Man adapts himself very readily to life in high altitudes, where the air is rarefied. The local troubles of hematosis are compensated for by active hematopœsis. This would explain the curative action of elevated regions on pulmonary phthisis. It also affords a valuable indication for the selection of a locality for invalids. Plethoric persons should go to the sea-shore, where the salt air will tend to reduce their blood to a proper consistence; while anæmic individuals should take to the hills. For some years we have been sending patients with anæmia to Bedford, Cresson, and other places in the mountain region of Pennsylvania, with the best results. There are numerous localities in the Alleghenies where living is fabulously cheap, and the conditions much more suitable for debilitated persons than the more expensive sea-side resorts.

ASYLUM CONFLAGRATIONS.

THE destruction of the Central Tennessee Insane Asylum by fire, with the loss of nine lives, serves again to emphasize the great danger of incendiarism in such institutions. The majority of the inmates of asylums for the insane are possessed by the desire to get out, to get home, to be free; and this often comes to be the one engrossing idea of their minds. Many of them would not hesitate a moment to set fire to the building if they had the opportunity, in order to secure their release during the confusion; while not a few have ingenuity enough to devise plans for accomplishing this purpose. Twenty years ago careful managers insisted on the exclusive use of safety matches and carefully destroyed the boxes when new ones were issued. But these matches ignite pretty well upon glass. Nowadays, the electric light should be the only illuminant allowed in an asylum; and many are thus fitted out with the best and safest of lights.

But the greatest danger is one that can scarcely be obviated—that arising from the selfishness of the smoker. The attendants will manage to smoke,

rules to the contrary notwithstanding. In the British Navy it was found simply impossible to prevent smoking; and the rules against it had to be rescinded, because the men would smoke, and when in danger of detection would hide their short pipes away in any nook or cranny, to the very great danger of setting the vessel on fire. Yet this risk they would run rather than submit to detection and punishment, and relying, perhaps, on the proverbial "luck of the British army," afloat or ashore.

Letters to the Editor.

TREATMENT OF NASAL CATARRH.

AS a result of my observation on the action of different drugs in nasal catarrh, I have found the following composition, which I have used in many cases, to be of great benefit, and to which I call the attention:

℞.—Salis nitrici cubici,
Pulvis camphoræ triti ..... āā ʒj.
Sacchari albi..... ʒ semis.
M. et pulv. subtilissimus ad scatula.
S. As directed.

If the nose of the patient is in such a state that he is unable to draw in the powder, I use an insufflator, by means of which a small amount of the powder is blown into both nostrils. After the first dose the patient usually finds himself enabled to breathe through the nose, and feels a little better (there is an itching for a few seconds). The secretions usually cease after awhile altogether. Repeat the dose in fifteen minutes by snuffing. The inflammatory condition diminishes, and all the symptoms of the disagreeable disease weaken, and after repeated doses of this powder—say every fifteen or twenty minutes—the patient gets well in three to four hours. I have tried this remedy with success upon my own person many times. In complications such as swollen nose, pain in the throat and chest, cough, and slight fever, this remedy acted almost magically in combination with the following: Drink species pectoralis, apply fat to the nose, take a foot-bath, use a slight solution of tannin as a gargle.

The patient feels himself again on the next day. Such a quick relief I never accomplished; neither by means of calomel, according to Trousseau, nor pulvis cubebarum, according to Spitt; not even by ½-grain of morphine, according to Schneider. The powder used must be fresh, and kept in a paper box.

S. SEILIKOVITCH.

338 SPRUCE STREET.

ERYSIPELAS.

IN your issue of the 21st ult. I noticed an article entitled "Pirogoff on Treatment of Erysipelas," in which is recommended the internal administration of camphor. Among other things he says: "Of all internal remedies camphor is the most efficacious."

I have never employed this remedy internally in this disease, but for the past few years have regarded it as a reliable, if not *specific*, therapeutic agent in its local treatment.

Since beginning its use I have constantly employed it in all cases of facial or simple cutaneous erysipelas with the most gratifying results. I usually employ a saturated solution of camphor and tannin in sulph. ether:

℞.—Acid. tannic..... gr. xlv.
Camphor..... ʒiiss.
Etheris sul..... ʒij.
M.—Sig. Apply by means of a camel's-hair pencil every three or four hours, until a white, impervious coat is formed.

After this I apply it at sufficient intervals only, to keep this coating intact until the disease is completely under control, which is evidenced by a return of temperature to normal, arrest of its progress, and disappearance of the œdema of the affected parts.

If these cases are seen early, before the involvement of much integument and the development of much constitutional disturbance, a few applications *invariably* cut short the disease. If much constitutional disturbance has already developed, as is often the case, before we are called, I usually administer aconiite internally, and mild cathartics if constipation exists. If there is much anæmia, I sometimes follow this with the tinct. ferri chloridum.

I have been able to control the disease in *all* of my cases thus treated in from one to six days, according to the severity of the attack and extent of the local inflammatory trouble, and I have always regarded the local application the principal (and often the only) agent in bringing about this speedy resolution. I have had the opportunity to test this local treatment in but one case of *erysipelas neonatorum*, which developed in a child within a few hours after its birth, and seen by me within a few hours after its commencement.

It had already involved the whole of the face and scalp when I, in a state of hopeless despair, directed the paint to be applied every three hours, and made an appointment for the following morning. Upon my arrival I found head still almost twice its normal size, eyes tightly closed from the œdema, great constitutional disturbance, and erysipelatous inflammation extended down, involving the whole of the neck. Continued same application, and, upon the third day, disease was under control and patient discharged convalescent.

I look upon the remedy as almost a *specific* in this disease, and, with the happy results of past experience, shall, with increasing confidence, investigate the merits of the claims of that distinguished surgeon.

W. H. NUDING, M.D.

BOTKINS, O.

CAUSE OF COLD NOSE.

FOR nearly five years I have been much interested in a question to which nowhere in the medical literature can I find the answer. Accidentally I found the same question on the pages of the *Medical World* for February, 1891. But as I am not sure if this question was answered, I would be very glad to have it answered in your journal, especially as I am myself personally interested in it. The question is this: What is the cause of a person having a cold nose, the nose being almost as cold as an icicle? As to my own case, I can say in addition, that besides my nose always being cold, the presence of onion always excites profound perspiration of that organ, which is not the case in the presence of any other irritant.

S. SEILIKOVITCH.

338 SPRUCE STREET.

[Coldness of the nose is a symptom of deficient circulation. If the toes and fingers are also cold, the heart is probably at fault; if the nose alone suffers, there is a local obstruction to the access or outflow of blood. Such local impediments are sometimes caused by frost-bite, which gives rise to some disturbance in

the circulation by which the part becomes easily chilled and difficult to keep warm. Atheroma may be ranked as the cause next in frequency. Other local anomalies may cause the coldness, to be discovered on examination. As to the action of onion, the explanation following may appear fanciful, but perhaps our readers will suggest a better: If the odor of onion stimulates the Schneiderian membrane, there is a momentary afflux of blood to the nose—*ubi irritatio, ibi affluxus*—and if there is already a difficulty in the return circulation, the congestion is relieved by the exudation of serum. But why the same effect does not follow the application of other and more powerful irritants is "one of the things no fellow can find out."

Book Notices.

ESSENTIALS OF SURGERY. By EDWARD MARTIN, M.D. Illustrated. Fourth Edition, revised and enlarged. Philadelphia: W. B. Saunders, 1891. Cloth, 12mo, pp. 334.

Included in this volume are full directions for bandaging, and for the preparation and use of antiseptics in surgery, together with several hundred prescriptions used in treating surgical cases.

DIABETES. Its Causes, Symptoms, and Treatment. By CHARLES W. PURDY, M.D. With clinical illustrations. F. A. Davis, Philadelphia and London, 1890. Cloth, pp. 184. Price, $1.25.

Although diabetes is not a very common disease in America, some parts of this country furnish enough cases to make an American book on the subject of considerable interest. New England appears especially prone to diabetes; Vermont excelling in that respect, as the ratio of diabetic deaths to the total mortality is as 6.30 to 1,000. Alabama gives the smallest ratio, .55 to 1,000. Dr. Purdy concludes that cold and altitude are the chief causative factors. Whether the production of maple sugar in Vermont has any influence he does not state. We have seen it recommended as a remedy.

THE DAUGHTER. Her Health, Education, and Wedlock. By WILLIAM M. CAPP, M.D. F. A. Davis, publisher, Philadelphia and London, 1891. Cloth, pp. 144. Price, $1.00.

There comes a time in the young woman's life when she realizes the imperfections of her training and education. When the responsibilities of wifehood and maternity confront her, she learns that music and dancing, French and lawn-tennis still leave a little to be learned before she is fitted for the duties of life. Fortunate is she, then, if a wise mother or friend is at hand to initiate her, and the traditions thus transmitted, with the natural intelligence of the sex, enable them to get through their difficulties "somehow." It is to supplement this imperfect method by giving a solid substratum of elementary facts upon which to build that Dr. Capp's book has been written. It is intended for the non-professional public, and everything is put in language so plain that comprehension cannot fail with any reader. The questions relating to puberty and its dangers are handled so delicately that no one need fear to place this chapter in the hands of a daughter. We have not met with any book on this subject that accomplishes its objects as well as this of Dr. Capp's. We advise our readers to obtain it, and to recommend it to their patients who have daughters growing into womanhood.

Pamphlets.

The Cæsarean Section from the Standpoint of Relative Indication. Report of two cases. By Egbert H. Grandin, M.D., New York.

Suppurating Endothelioma—Myofibroma in a Condition of Necrobiosis—Remarks on the Treatment of the Pedicle, etc. By Mary A. Dixon-Jones, M.D., Brooklyn, N. Y. Reprinted from the *Medical Record*, September 6, 1890.

Atypic Herpes Zoster Gangrenosa, with Report of Two Cases. By Benj. Merrill Rickets, Ph.B., M.D. Reprinted from the *Journal of the American Medical Association*, November 29, 1890.

Neuer Beitrag zur Ichthyolbehandlung bei Frauenkrankheiten. Von Dr. Herrmann W. Freund. Separat-Abdr. aus *Berliner Klin. Wochenschrift*, 1890, No. 45.

Zur Ichthyolbehandlung von Frauenkrankheiten. Von Dr. Reitmann und Dr. Schönauer. Sonderabdruck aus der *Wiener Klinischen Wochenschrift.*

Ueber die Anwendung des Ichthyols bei Frauenkrankheiten. Von Dr. H. W. Freund, I. Assistent. Sonderabdruck der *Berliner Klinischen Wochenschrift*, No. 11, 1890.

A Case of Intracranial Neoplasm with Localizing Eye Symptoms; Position of Tumor Verified at Autopsy. By Charles A. Oliver, M.D., of Philadelphia. Reprinted from the *Archives of Ophthalmology*, Vol. xx, No. 1, 1891.

Kurzer Beitrag zur Ichthyoltherapie bei Frauenkrankheiten. Von Dr. Kötschau, in Köln. Sonderabdruck aus *Münchener Medicinische Wochenschrift.*

Mittheilungen aus dem Garnisonskrankenhaus. Von Chr. Ulrich, Reservearzt. Sonderabdruck aus *Hospitals-Tidende.*

Uber "Ichthyolfirnisse." Von P. G. Unna. Sonderabdruck aus *Monatshefte für praktische Dermatologie.*

De l'Ichthyol Dans le Traitement de la Dyspepsie et des troubles céphaliques and nerveux qui en dépendent. Par A. Stocquart. Extrait des *Archives de Medecine et de Chirurgie pratiques de Bruxelles.*

Ichthyol et ses Préparations. Par Dr. Gillet De Grandmont. *Journal de Medecine.*

Annual Report of the Treasurer of the Academy of Natural Sciences of Philadelphia, 1890.

Bullock's Blood in Therapeutics. By F. E. Stewart, M.D., Ph.G.

Ichthyol and its use in Medicine and Surgery. By A. Müeller, M.D,, of Yackandandah, Victoria. Reprinted from the *Australian Medical Gazette.*

The Radical Operation on Hernia. By B. Merrill Ricketts, Ph.B., M.D.

The Rational Treatment of Uterine Displacements, Based upon a Consideration of the Pathological Conditions Present. By Augustin H. Goelet, M.D., New York. Reprinted from the *American Journal of Obstetrics.*

The Medical Digest.

APOCODEINE.—In six cases I have used apocodeine by mouth as an expectorant with satisfactory results. The first patient was seventy years of age, and had long been under treatment. On September 24 he was ordered 10 minims of a 1 per cent. solution three times a day; on October 1 the dose was increased to 20 minims three times a day; on October 9 to 25 minims; and on October 29 to half a drachm. He expectorated very freely indeed, especially after the larger doses, but there was no complaint of nausea or vomiting. In the case of another patient, aged seventy-one, the dose was gradually increased from 10 minims to half a drachm three times a day, and again it answered well as an expectorant, and produced no disagreeable symptoms. This patient in six weeks took 28 grains of apocodeine. In one case, and one only, the apocodeine produced nausea and vomiting. The patient was a boy, aged seventeen, an artist's model, who suffered from neurotic asthma. From April 23

to June 25 he was on apomorphine, the dose being gradually increased from 15 to 50 minims three times a day. During this period he took nearly a drachm of the hydrochlorate of apomorphine, not only without the production of any unpleasant symptoms, but with marked relief to his attacks of dyspnœa. On July 16 he was ordered 5 minims of the 1 per cent. solution of apocodeine three times a day, the dose being week by week increased by 5 minims at a dose. There was no complaint until, on October 1, the patient was ordered 20 minims three times a day. He then stated that it made him feel sick, and that he was "unable to keep it down." He took twelve doses, and usually vomited about two hours after each dose. On October 8 the dose was reduced to 15 minims three times a day, which he took without difficulty. On October 15 the dose was again increased to 20 minims three times a day, and this he took for a fortnight without suffering from vomiting, although he admitted that he usually felt sick after each dose. He took in all 24 grains of apocodeine.

The hydrochlorate of apocodeine acts as a powerful expectorant when given in the form of pill. From 3 to 4 grains may be administered daily with perfect safety.—Murrell, *Brit. Med. Jour.*

PHENACETINE IN SCIATICA.—Sciatica is not only one of those affections which are extremely annoying and painful to the patient, but on account of its persistency often greatly tries the patience of the physician. At the clinic of Prof. Landon Carter Gray most benefit has perhaps been obtained from phenacetine, given, say, in tablets of four to eight grains every three or four hours. There are a good many cases, however, which do not respond to it very markedly. Doubtless, too, there are many cases of sciatica neuritis, rheumatism, gout, etc., in which a diagnosis of sciatica is erroneously made; but perhaps more frequently sciatica is mistaken for one of these affections.—*Practice.*

EARLY in the days when acetanilide was first introduced, some prominence was given to its antiseptic properties, but in the crowd of substances specially introduced as members of the "antiseptica," this field of usefulness for it was forgotten. Quite recently its virtues in this direction have been accentuated by the descriptions of its use instead of iodoform in the treatment of hard and soft venereal sores. The chancre is simply dusted with the powdered compound, and the result is said to be a rapid and complete healing. The advantages of the odorless and non-toxic acetanilide over iodoform need no emphasis; while for hospitals and dispensaries its cheapness would further recommend it if increased observation confirm these statements.

—*Provincial Med. Jour.*

TRICHLORACETIC ACID.—1. Trichloracetic acid compares favorably with other caustics in hypertrophic conditions of the throat and nose, and is a valuable addition to the remedies now in use.

2. In the greatest majority of cases it is sufficient to produce the desired reduction of tissue, although it does not supersede the galvano-cautery.

3. It can be applied with safety to the larynx without any evil consequences.

4. Its chief advantage in nasal affections is the dryness of its eschar, which prevents unpleasant sequelæ, and makes after-treatment unnecessary.

—Gleitzmann, *Med. Record.*

TO STOP NOSE BLEED.—Dr. W. T. Lusk, of Bellevue, told the class the other day that about twenty years ago he was in the office of a country practitioner when a man came in with the nose bleed. Instead of being greatly disconcerted or excited about the matter and hurrying about to find means with which to plug the posterior nares, he quietly walked over to a desk, took out a clothes-pin, pushed it down over the cartilaginous part of the man's nose, and went about his other duties. After perhaps ten minutes the clothes-pin was removed and the epistaxis did not return. Dr. Lusk stated that this might not seem a very artistic or scientific procedure, but he had been looking for a case the past twenty years in which it would not succeed in checking the nasal hemorrhage. Moreover, it was by no means as uncomfortable as the use of a coagulating salt or a posterior plug. The fingers would answer as well as a clothes-pin, but the nose should be grasped from above downward, not simply clasp the alæ between the thumb and finger.—*Practice.*

CHOREA.—The physician is often at his wits' end to find some efficient remedy for chorea. Tilden claimed to have obtained great benefit by throwing a spray of ether for five or ten minutes along the spine, at the same time keeping up nerve nutrition by appropriate food and exercise. Clark, surgeon-in-chief of the police department in Newark, N. J., reported some time since in the *Times* an exceedingly aggravated case of chorea treated with entire success by antipyrine. Acting upon the hint, we have recently controlled in children from five to ten years of age serious forms of chorea with 5-grain doses of antipyrine, at first every four hours, and, as the condition improved, three times a day. Very likely there are conditions of the system which would prevent the curative action of the drug, but in these cases it was certainly very effective, acting as a positive curative agent. That this drug is something more than an antipyretic and antispasmodic is seen in its action in renal spasm, the result of calculi, in which it not only controls the spasms, but, continued in 5-grain doses for several days, causes the uric acid and the sand to disappear from the urine.

—*N. Y. Med. Times.*

RESPONSIBILITY IN APPENDICITIS.—1. The care of cases of appendicitis, so far as the physician is concerned, consists in his early and prompt recognition of the case. Abdominal surgery has now advanced to a point, and reached such a degree of success, by the application of methods of diagnosis by exclusion, that the physician is able to narrow down the possible condition of his patient to such a point, that sharing the anxieties of the case with the operative surgeon becomes an imperative and immediate necessity.

2. When called, the responsibility rests largely with the surgeon, to further aid or decide as to diagnosis, and as to the necessity of immediate operation. If it is once decided to operate, then the *technique* of the operation, and the care of the case for a certain period, devolves entirely upon the operating surgeon. It must be remembered that these cases often occur among a class of people where the anxiety is of the greatest, therefore, the physician and surgeon should join efforts early in the case.

3. At no time after the surgeon is called in and operates, should the physician and he be separated in their care of the case. The watching of the wound rests with the surgeon. Should he be in doubt as to

the necessity of an operation, he may be impressed more positively in the direction of the necessity of doing it later, if he sees the patient again at the end of twelve or twenty-four hours, or more or less frequently.

4. That the physician has yet much to grasp in the recognition of these cases as cases of great anxiety, there can be no doubt.

5. I am convinced that there is a great duty resting with operative surgeons in endeavoring to classify cases of abdominal surgery in such a way as will make it clearer to students and practising physicians to recognize these cases, and then to endeavor to bring before the older members of the profession an array of statistics, a percentage of recoveries, that will impress them with the importance of prompt operation in these cases.

6. The mutual care of these cases must consist in a greater, closer watching of early symptoms by the physician, and of a greater degree of confidence in the skill of operating surgeons. The care of these cases, as between physician and surgeon, must be brought to that plane where we shall meet with fewer cases of septic condition when operating, and where the symptoms of collapse, such as cold hands and feet, husky voice, sub-normal temperature, and like conditions, have not been reached.

—Vanderveer, *Med. Age.*

A Simple Treatment of Corneal Ulcers.—M. Valude, one of the ophthalmic surgeons of the Quinze-Vingts Eye Hospital, communicated to the Académie de Médecine, on February 10, a new method of treating those troublesome cases—ulcers of the cornea—so simple in its application, and, according to its inventor, so successful in its results, that it cannot fail to be generally adopted. Hitherto corneal ulcers complicated with hypopyon have been treated by puncture either by the knife or thermo-cautery, this operation having frequently to be repeated, and too often leaving behind it opacities, if not actual staphyloma. For this unsatisfactory method M. Valude substitutes a simple dressing, consisting of a pad of salol gauze, which, with a moistened gauze bandage, effectually seals the eye and maintains a certain amount of compression. Before being applied the eye is carefully disinfected. The dressing is not renewed until after three or four days have elapsed, when the ulcer is found to be already healing, and the collection of pus in the anterior chamber much diminished. M. Valude states that the cornea tends to regain its original transparency without any opacities. In corneal ulcers uncomplicated by hypopyon M. Valude, relying on his experience of fifteen successful cases, asserts that this new treatment is *the* treatment *par excellence.—Lancet.*

New Apparatus for Fractured Clavicle.—The appliance consists of a curved crutchhead of wood or metal, passing well up in front of the shoulder, supported by a round extension bar of steel, attached at its lower end to a curved steel plate on waist-band by a pivot-joint. The proper elevation of the shoulder is maintained by this extension bar and a suspensory strap passing over the sound shoulder, and is held backward by a strap passing around the sound shoulder, acting in conjunction with the anterior horn of the crutchhead, thus doing away with any pressure over the seat of injury.

The splint, if it may be so called, is light, easy of application, which may be either over or under the clothing, a point not without value in many cases; comfortable to wear, being easily tolerated by children; permits of early limited motion of the arm; will not slip or stretch, and, so far as I know, the results in all cases in which it has been used have been as nearly perfect as the most exacting could wish. The crutchhead is of sufficient size to carry the arm somewhat outward from the body, and may be padded or not, to suit the ideas of the surgeon; at the same time it is not likely to cause undue pressure upon the contents of the axilla, as there is no pressure exerted over the top of the shoulder, and the arm is supported in a sling, or by pinning the sleeve to the clothing.—Curtis, *N. A. Pract.*

Dry Diet.—1. Under the influence of a "relatively dry diet," both the assimilation and metabolism of the mineral constituents of food are usually distinctly increased. The following table shows the respective surpluses in average per cent. figures:

NaCl	1.5	7.5
P_2O_5	8.0	8.0
SO_3	11.7	16.1
CaO	11.3	13.8
MgO	13.6	21.5

2. It is highly probable that such increase is dependent, primarily, upon inspissation of the blood, the latter tending to restore its normal proportion of water by way of an intensified absorption of fluids from the gastro-intestinal tracts.

3. The per cent. relation between water voided through the kidneys and ingested water invariably increases, the surplus averaging 20.2 per cent.

4. On the whole, the diminished ingestion of fluids (which plays so important a part in Oertel's method of treatment of cardiac and certain other affections), affords an excellent means for promoting the elimination from the system both of water and mineral constituents.

5. Such dietetic restriction, however, is accompanied by a train of unpleasant subjective and objective phenomena. Thus, as a rule, even about the first evening of the reduced ingestion of liquids, the subject begins to experience thirst, which steadily increases to a troublesome extent. The appetite at the same time distinctly fails; while on a third, or more frequently a fourth, day, there appear physical lassitude and mental languor, with aversion to work. Moreover, defecation becomes rather difficult (on account of dryness of fæces).—*Prov. Med. Jour.*

Amputation under Cocaine.—Thos. S——, a short, stout, robust, muscular laborer, of a lymphatic temperament, was brought from Wright's mill to my office in the forenoon of June 13, 1890. His right hand was completely crushed as far as the wrist, the result of being caught between the drawheads of two loaded cars, while attempting to couple them. His face was ashen color, and he seemed faint and distressed from the effects of the shock.

His heart and lungs being apparently in good condition, I decided to administer chloroform, and began to give it from a paper cone containing some absorbent lint, on which was poured about a drachm of the anæsthetic, the cone being about one inch from the face, so as to give him plenty of air. After two or three inhalations, respiration stopped, while the pulse remained good. On taking away the cone and striking the thorax several times respiration reappeared, but upon replacing the cone it again stopped, each process being repeated three times, after which I laid the chloroform aside, and not having any ether in the office, concluded to try cocaine.

Filling a 20-minim hypodermic syringe with a 5 per cent. solution, I injected 5 minims into the dorsal and 5 into the palmar surface of the wrist, just opposite the posterior side of the head of the radius. No bandage, compress or tourniquet was used above. After waiting five minutes I repeated the injections, same amount and very nearly in the same localities, and immediately began the operation without professional assistance. The patient reclined in the operating chair, looking away, and talked all during the operation, not complaining of pain except during division of the deep tissues on the palmar side of the wrist. After completing the amputation I applied a 10 per cent. solution of cocaine to the open wound for about two minutes before closing and dressing it.

Now comes what seems to me the only part of the case which merits much consideration. The patient arose from the chair, expressed himself as feeling very much better, walked out of the office, got into the buggy, rode two and a half miles to the mill, ate a good big dinner, and never kept his bed a day nor missed a meal from the effects of the operation. The shock had disappeared. Did the cocaine cause the disappearance? I would like to have the opinion of others on the subject.—Rhodes, *Occid. Med. Times.*

PREVENTION OF CRUELTY TO HUMAN BEINGS.—The Massachusetts "Society for the Prevention of Cruelty to Animals" has adopted a most ingenious and effective method for carrying out a most important item of its mission. The principal streets of Boston are now patrolled by men bearing banners on which are inscribed, "Please Blanket Your Horses." Seeing a fashionable equipage drawn up in front of a fashionable store, and the horses standing in the cold, minus blankets, the agent of the society plants himself and his sign in front of the horses. It takes but a few minutes for a crowd to collect. When the mistress of the horses emerges from the store and *waddles* toward her carriage, the crowd attracts her attention. Looking up, she reads the suggestive placard. At first surprise, indignation, resentment are the mastering emotions, but soon common sense and humanity are in the ascendency; imperative orders are given to the coachman, and these particular horses are never again seen on a cold day without blankets. What an admirable method is this for accomplishing that most praiseworthy work of caring for that portion of the animal race unable to care for itself. But, admirable as it is, and deserving of all possible sympathy and support, does it not seem that we should make some similar effort to care for those animals of a higher class, who, while able to care for themselves, yet through ignorance or carelessness fail to do so? We would suggest that, in company with the placard already mentioned, a man be sent about our streets suggesting to these fat "American Dowager-Duchesses," whose livers are veritable "*pate-de-foie-gras*," that they should dispose of their luxurious equipages and resort more to the means of locomotion that has been furnished to them by nature.

The inactive, passive, indolent existence of luxury and, we might also add, of gluttony, that is indulged in by our rich women of fifty years of age and over (the class who use horses and carriages), is most favorable for the production of fatty degeneration of the vital organs, and is most prejudicial to health. If it be necessary that one must own a fine "*establishment*" in order that she may be regarded as a person of fashion and wealth, let it be so; but let her (after having placed her monogram conspicuously all over the harness and carriage, so that the ownership may be unquestioned) place her equipage at the disposal of *her worst enemy* and do her own traveling by foot.
—*Annals of Hygiene.*

TREATMENT OF CHRONIC ENDOMETRITIS.—The treatment of this condition resolves itself into drainage and the application of mild astringents or caustics to the endometrium. I think the tincture of iodine will answer best in this instance, though iodized phenol for a first application might be preferable. In applying this fluid it is necessary to protect the vagina from injury by a pledget of cotton or other material, for carbolic acid or iodine will destroy the epithelium of the vaginal wall.

This application is made by means of a cotton wrapped applicator, which, after its introduction into the cavity of the uterus, should be permitted to remain there for a minute or so, for by too rapid a withdrawal of the instrument you are apt to tear away the eschar that may have formed as a result of the application. Have your tampons of tannin and iodoform ready, so that you can apply them on withdrawal of the applicator. Instruct your patient to keep quiet the rest of the day, and remove the tampons on the following morning, and use hot douches at a temperature of 110° or 115° F., with the patient in a recumbent position. In about four days you may again repeat this intra-uterine medication, and if you then find that there is little or no oozing, you can conclude that you have done enough cauterization, and apply the compound tincture of iodine in the same way. The latter treatment may have to be kept up for several weeks or months.

Several very eminent gynæcologists claim that intra-uterine applications are practically useless. I admit these applications are not as effective as we should wish them to be, but still they are attended with some benefit to the patient. I have certainly cured a large number of cases of chronic endometritis, and if I had not tried to cure them by intra-uterine applications I should never have succeeded.

There are various other ways in which these applications can be made to the endometrium, besides the one I have just alluded to. The practice of injecting iodine or other fluids by means of a syringe into the uterus is certainly a much more efficient method, but it may prove so very efficient that you will not desire to try it a second time. I have seen uterine colic follow its use, and the uterine colic thus induced is apt to be so severe as to bring on collapse. There have been cases of death from peritonitis occurring as a result of this procedure. I therefore warn you against this method of applying these medicinal agents to the interior of the uterus.

Another agent I employ to a great extent for intra-uterine medication is a 50 per cent. solution of chloride of zinc. This is a very effective remedy, but it is necessary to keep the patient in bed after using it. It should be applied but once in ten days, and only a few times in any given case.

The *sine qua non* for intra-uterine applications is a patulous uterine canal, with the external and internal os so wide as to permit the passage of a good-sized applicator, wrapped with a large film of cotton, up to the fundus, if you choose. Of course, in all instances, the removal of the cause of the affection by appropriate remedies, if you can do so, is the proper course to pursue, whether that cause be pelvic congestion, prolapse, constipation, abdominal plethora or some other condition—Mundè, *Int. Jour. Surgery.*

SALT.—I am sure we all take too much of this condiment, and then are driven to drink abnormally in order to wash it out of the system. Vegetarians need salt in order to give savour to their colorless diet, mixed eaters much less, pure flesh eaters—like the South American *gauchos*, and, when they can get enough of it, the Australian aborigines—none at all, for all the salt we should decompose in order to digest that flesh exists in it already. And it was one of the most touching, the most pathetic sorrows of the then recently discovered New Zealander, in those vanished days when we believed that the noble savage was all our fancy and Fenimore Cooper painted him, that the missionaries we sent out were too salt, really too savoury, for their unsophisticated taste. Indeed, one of those guileless children of nature assured a cousin of my own, with the frankest sincerity, and with many apologies, that he would rather not eat him; in fact, should not think of such a thing until every other pig in the village had been sacrificed.

And this explains much of the endurance of fatigue, or rather its retarded induction, exhibited by the savage; an Australian "boy" will eat a fair-sized leg of mutton, and run like the prophet of old with his loins rather scantily girded up, hour after hour, with untired speed. A white man trained into as good condition breaks down, not from exhaustion, but thirst, in an hour's time. He has only to lose a few ounces of the water of his blood by perspiration, to render it so salt that its function as an oxygenator, from the contracted red cells, can no longer be carried on; he pants for breath, not because his lungs are overtaxed; he sinks dead-beat, not because his muscles are overwearied, but because his blood has become unfit for its most important duty, and the muscles, for want of oxygen, are narcotized into helplessness. A man in training should eschew salt as carefully as he avoids alcohol.

Excessive thirst is best relieved by sipping hot tea, and if the tongue be parched, by adding a tablespoonful of brandy; alcohol cools the body by relaxing the capillaries generally, and so favoring transpiration in all directions; hot tea, or in fact simply hot water, by reducing the tension of those of the mouth; and it is much more quickly absorbed than cold for the same reason. But let the brandy be restricted to the single tablespoonful, the tea be of the first brew, but the weakest, the water, as Tim O'Reilly directed it to be for the due concoction of punch, "rayther hotter than boiling," and only just shown into the well-charged teapot and out again.

It has been said that the only skill required in treating enteric fever is in deciding when we should begin to give alcohol; in that and all other morbid conditions I have but one test, but I believe it is infallible—the dryness or moisture of the tongue. If this organ be dry I give brandy in small and frequently repeated doses until it becomes soft and moist, half an ounce perhaps every hour, but once in a case (which recovered) of puerperal fever two ounces hourly day after day. But if the tongue be moist to the touch, not one drop, whatever the condition of the patient may be; being convinced that it could then do nothing but harm. The idea that wine and spirits "give strength to the system" is an idea too firmly ingrained into our national life to dislodge, and even in our profession it is only slowly receding before sounder pathology and better knowledge.

—*Provincial Med. Jour.*

THE further use of Koch's tuberculin has been officially forbidden in the hospitals of Warsaw.

Medical News and Miscellany.

SCARLATINA threatens to become epidemic at Lombard, Illinois.

Two hundred and fifty soldiers at Fort Omaha are in the hospital with grippe.

A NEW eclectic medical college has been chartered in Chicago, and will open its doors next fall.

THE *Chicago News* is going for the management of the county hospital with true Chicago vigor.

DR. S. PRESTON JONES died March 13, at Merchantville, N. J., of fatty degeneration of the heart.

THE medical staff of St. Clement's Hospital consists of twenty-three physicians, of whom twenty-one are graduates of the University of Pennsylvania.

THE village of Sandy Lake, in Mercer county, Pa., is threatened with an overflow from the lake. The Legislature is asked for an appropriation to open an outlet.

THE *Paris Figaro* asserts that Dr. Bernheim's treatment of tuberculosis by transfusion of blood is more dangerous than the Koch method, and that it has caused four deaths in five days.

THERE is a place in New York where a night's lodging and a glass of beer can be had for two cents. But the beer is drugged, and the victim awakes to find himself stripped of his clothing.

DR. W. H. WALLING has accepted the invitation of the Faculty of the Medico-Chirurgical College to fill the Lectureship upon Electro-therapeutics, made vacant by the resignation of Dr. Mettler.

MRS. LIZZIE MURRELL, a saleswoman in Chicago, was declared insane and sent to Kankakee. She had invested $2,000 in a building association which failed, and the thought that she had lost the money unsettled her reason.

ONE hundred and fifty graduates received their diplomas on March 2, from the University of Louisville. The competition of rival schools has not injured the university much, as this is the largest class she ever graduated.

THERE'S a man named Dowd, located, we think, in Washington, who sells a gymnastic apparatus for home use. It consists of a pulley with weights that can be arranged in your bedroom, and used for a few minutes every time you come into the room. It is very handy and useful.

DR. NICHOLAS SENN has accepted a chair in the Chicago Medical College. His work on the Principles of Surgery has been received with much favor abroad. The *Journal of Laryngology and Rhinology* speaks very favorably of it; much more so than English journals generally do when reviewing an American book.

MOST persons in this country pronounce phthisis "tee-sis;" yet among eight lexicographical authorities quoted by Webster not one gives this pronunciation, the predominant one being "thi-sis." Only one authority (Smart) calls it "tisis," a pronunciation prevalent in Boston. Our esteemed leguminophagous colleagues cannot, therefore, put on any airs, other than those legitimately resulting from their strong east winds.—*Med. Record.*

As rumor has it, a new medical journal is to be started in Chicago. It is to be called *The Chicago Medical Record*. We have not heard whether William Wood & Co. of New York have given their consent to the name and publication or not. The pabulum of the new journal is to be the proceedings of the Chicago Medical Society. This is the first fruits of moving the *Association Journal* to Washington. The artful Surgeon-General Hamilton will be glad to know of this gestation, and that *The Standard* is to be made a daily, and all the monthlies will hereafter appear as often as once a week. The new venture will be published by Keener, if the trade permits, and the editorial management will be in the hands of a North Side Medical School.—*N. A. Pract.*

THERE are fourteen candidates for Lazaretto Physician, including Dr. F. S. Wilson, of Montgomery country, who held the office under Governor Pattison before; Dr. C. S. Baker, of Philadelphia, and Dr. R. B. Schulze, of Reading. Six candidates are in the field for Port Physician. They are Dr. D. J. Loughlin, who was inspector of drugs in the Custom House under President Cleveland; Dr. Henry Leffmann, former Port Physician under Governor Pattison; Dr. John J. Healy, Dr. C. A. Voorhees, Dr. William Delker, Dr. John I. McGuigan, and Dr. William Pratt Reed, all of Philadelphia; Dr. A. C. Light, of Lebanon; Dr. T. J. Boyer, of Madera; Dr. R. C. Clark, of Columbus; Dr. H. C. Lessig, of Chambersburg, and Dr. H. Montgomery Moody, of East Smithfield.

THE disinfection of passenger cars is receiving the serious attention of foreign railway companies, and action in a similar direction would not be amiss in this country. Owing to the tenacity of disease germs it is wholly unknown as to how much they are disseminated by our luxurious upholstered sleepers and coaches. Obeying the laws of cleanliness will not alone suffice to destroy these bacteria, and in such instances as when the drift of travel is mostly in the direction of health resorts by subjects known to be afflicted with diseases of various forms, the most rigid sanitation should be observed and thorough fumigation and disinfection enforced. In France they carry sanitary conditions so far as to discard the velvet cushions and silk curtains and drapery in the coaches running to southern districts, where travel is heavy among passengers afflicted with pulmonary complaints, and have adopted instead soft leather coverings. Bed clothing is thoroughly disinfected and mattresses are covered with impervious silk or with gutta-percha.—*Railway Age.*

AT the last meeting of the Chicago Academy of Sciences, Prof. Long gave an account of analyses made by him of the waters obtained from the gravel seams in the bowlder-drift clay through which the new tunnel under the lake is being excavated.

Prof. Long finds that the waters of Chicago are of three distinct types, very different from each other. First, we have the lake water, containing only a very small amount of mineral ingredients. Then we have the artesian wells bringing up from a depth of 1,200 feet waters having a somewhat larger amount of various saline substances. Between the two—that is, below the waters of the lake and above the rock whose crevices are filled with the artesian water—lies about eighty feet of tough clay full of bowlders, and traversed by water-bearing seams and "pockets" of gravel. The waters here are totally different from those in the lake above and the rock beneath. They contain a large quantity of the carbonate of soda, lime, magnesia, and potash, and in that respect resemble the famous Vichy mineral water, so celebrated for the cure of rheumatism and kindred diseases. It is found that the workmen in the tunnel prefer this water for drink, and say it is vastly better than the lake water.

The academy has requested Prof. Long to continue these researches throughout the whole length of the tunnel, and to report the results at a future time.

Suitable engineering plans would enable one to obtain these carbonate waters in unlimited adundance for curative purposes if any enterprising person should undertake the work.

A little germ in a sewer grew
And there increased to a million or two,
When all set forth, on mischief bent,
And ascended a pipe till they came to a vent.
They parleyed much which way to go,
Then started up the waste-pipe slow:
But a plumber there had set his trap,
With many a twist and bang and rap,
And into it the microbes flew
To the number of a million or two.
And then the flush came rushing down,
And thus the plumber saved the town;
For they were typhoid germs, they say,
That fell in the plumber's trap that day.

—*Sanitary News.*

A PARLIAMENTARY FOG FILTER.—Far down in the recesses of the House of Commons, beneath the feet of unsuspecting Senators, is a spectacle which, if it could be exhibited in a public place in London, would send a thrill of horror through the community. It is a vast layer of what at first sight looks like cotton wool that has been first dragged through the Thames mud and finally sprinkled over with ink. Originally it was a mass of virgin white cotton wool. For many years the resident engineers have been battling with the fog. They have modified its effects within the House, but never till now have they succeeded in absolutely conquering it. A layer of cotton wool is prepared, and the air, drawn from outside, is simply driven through it by force of a steam fan. The bed of cotton wool is six inches thick, and the area in use this week has extended over 800 feet. The effect of the process is simply startling. If this filth had not been arrested by the layer of cotton wool it would have passed into the House and into the lungs of honorable members.

WHAT RUSSIANS LAUGH AT.—"Ah, doctor, allow me to give you my heartiest thanks for that medicine you prescribed for me."

"So it helped you very much."

"Yes, indeed, immensely."

"How many bottles did you use?"

"I didn't drink any myself, but my uncle got away with one bottle, and soon after breathed his last. I inherit all his property."—*Svet.*

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writer.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from March 8, to March 16, 1891.

By direction of the Secretary of War, Major Henry M. Cronkket, Surgeon, will report in person to the commanding officer, Fort Adams, Rhode Island, for temporary duty at that post, until the arrival of a successor to Major Samuel M. Horton, Surgeon, when he will return to his proper station. Par. 8, S. O. 45, A. G. O., Washington, D.C., February 27, 1891.

War Department, Washington, D.C., February 26, 1891. The following named officers, having been found by army retiring boards incapacitated for active service on account of disability incident to the service, are, by direction of the President, retired from active service this date, under the provisions of Section 1,251, Revised Statutes: Captain J. Victor DeHanne, Assistant-Surgeon, and Captain William R. Steinmetz, Assistant-Surgeon. Par. 18, S. O. 44, A. G. O., February 26, 1891.

By direction of the Secretary of War, Captain William O. Owen, Jr., Assistant-Surgeon, is relieved from further duty in the Department of the Missouri, and will report in person to the commanding officer, Jefferson Barracks, Missouri, for duty at that station, and by letter to the superintendent of the recruiting service. Par. 2, S. O. 44, A. G. O., Washington, February 26, 1891.

By direction of the acting Secretary of War, Captain William C. Shannon, Assistant-Surgeon, now on duty at Fort Apache, Arizona, will repair to this city and report in person to the Adjutant-General of the Army for further orders. Par. 5 S. O. 55, A. G. O., Washington, March 11, 1891.

By direction of the acting Secretary of War, Captain Henry I. Raymond, Assistant-Surgeon, is relieved from duty at Newport Barracks, Kentucky, and assigned to duty at Fort Thomas, Kentucky, reporting in person to the commanding officer, Fort Thomas, and by letter to the commanding general, Division of the Atlantic. Par. 18, S. O. 54, A. G. O., Washington, D.C., March 10, 1891.

War Department, Washington, February 26, 1891. Captain James A. Finley, Assistant-Surgeon, having been found by an army retiring board incapacitated for active service on account of disability, which is not the result of any incident of service, is, by direction of the President, wholly retired from the service this date, under the provisions of sections 1,252 and 1,275 Revised Statutes, and his name will be henceforward omitted from the Army Register. Par. 2, S. O. 54, A. G. O., Washington, March 10, 1891.

By direction of the Secretary of War, a board of medical officers, to consist of: Colonel Edward P. Vallum, Chief Medical Purveyor; Lieutenant-Colonel Dallas Bache, Surgeon; Major Alfred C. Girard, Surgeon; and Captain Charles M. Gandy, Assistant-Surgeon, is constituted to meet in New York City, on March 16, 1891, or as soon thereafter as practicable, for the examination of candidates for admission into the Medical Corps of the Army, and such other business as the Surgeon-General may desire to bring before it. Par. 18, S. O. 52, A. G. O., Washington, D.C., March 7, 1891.

RETIREMENT.

Lieutenant-Colonel Blencone R. Fryer, Assistant-Medical Purveyor, February 24, 1891.

PROMOTIONS.

Major Charles R. Greenleaf, to be Lieutenant-Colonel and Assistant-Medical Purveyor, February 24, 1891.

Captain Charles K. Winne, Assistant-Surgeon, to be Major and Surgeon, February 22, 1891.

Captain Timothy E. Wilcox, Assistant-Surgeon, to be Major and Surgeon, February 24, 1891.

Captain Fred. C. Ainsworth, Assistant-Surgeon, to be Major and Surgeon, February 27, 1891.

Captain Valery Havard, Assistant-Surgeon, to be Major and Surgeon, February 27, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending March 14, 1891.

KITE, G. W., Past Assistant-Surgeon. Ordered from New York Hospital and to the U. S. S. "Lancaster."

NORTH, JR., J. H., Assistant-Surgeon. Detached from the U. S. S. "Lancaster" and wait orders.

SMITH, G. T., Assistant-Surgeon. Detached from U. S. S. "Independence," and ordered to the "Mohican."

LUNG, GEORGE A., Assistant-Surgeon. Detached from the U. S. S. "Mohican" and ordered to Washington, D.C., in charge of insane patients.

Notes and Items.

LONDON, Ontario, Canada, May 26, 1890.
Jerome Kidder M'f'g. Co.
DEAR SIRS: Please send me . . . I have one of your batteries (Tip) which I prize highly. I have had several, but yours gives the greatest satisfaction in every way.
Respectfully, H. ARNOTT, M.D.

HELLO!—The telephone greatly puzzles the Indians in the United States. At a side station recently, a red man watched with the greatest attention, a railway official speaking into a telephone-box, and at last demanded:
"Who you talk to?"
"I am talking to a man," replied the official.
"Umph," quoth the Indian, "heap little man if him live in there!"

A NEW light, on the subject of physicians prescribing every new preparation with which they have been sampled by enterprising manufacturers, was given me by a druggist the other day. "It's just nuts for me," said the druggists, "for everytime I am called upon to dispense some hitherto unheard of preparation, I just telephone to the physician and ask him where I can get it, and invariably he places his sample at my disposal. That puts me just a clear profit in pocket, and the chances are ten to one that I never hear of the preparation again."—*Pharmaceutical Era.*

Read the advertisement on page iv.

SYRUP OF FIGS

(SYR. FICI CAL.)

In order to meet the almost universal demand for a safe, reliable and elegant liquid laxative, the

CALIFORNIA FIG SYRUP CO.,

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SAN FRANCISCO, CAL., - LOUISVILLE, KY., - NEW YORK, N. Y.,

is utilizing the delicious blue Fig of California in the preparation of

SYRUP OF FIGS,

an agreeable and effective laxative or purgative, according to the dose and manner of administration.

SYRUP OF FIGS is delightful to the taste, and may be taken by every one, from infancy to old age.

SYRUP OF FIGS does not debilitate, and is perfectly safe.

THE DOSE As a purgative, for an adult, is from one-half to one tablespoonful, and may be repeated in six hours if required. As a laxative, one or two teaspoonfuls may be given at bed-time or before breakfast. For children the dose may be regulated according to age and desired effect.

SYRUP —OF— FIGS

Is recommended and prescribed by prominent physicians in all sections of the United States, and gives general satisfaction.

In addition to the blue Figs of California, we use the juice of true Alexandria Senna, representing the laxative and purgative principles without its griping properties, also pure white sugar and an excellent combination of carminative aromatics.

Devoting our entire attention to the manufacture of **Syrup of Figs** after a thorough study of the results to be accomplished and of the best methods to produce a perfect laxative, and with complete manufacturing facilities especially adapted to the purpose, we are enabled to offer to the medical profession, in **Syrup of Figs**, a laxative which, though simple in itself, has not been produced in all its excellence by other parties, and we believe and trust that physicians will not permit imitations to be used when they prescribe **Syrup of Figs** (Syr. Fici Cal.).

SYRUP OF FIGS

IS MANUFACTURED ONLY BY THE

California Fig Syrup Company,

OF

SAN FRANCISCO, CAL., - LOUISVILLE, KY., - NEW YORK, N. Y.

It is sold to the drug trade in bottles of two sizes only: the smaller bottles containing full four ounces and the large size about ten ounces.

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YOU insure your house and pay the company about $100; when the house burns down you receive $5,000. Where does the other $4,900 come from. Not out of the capital stock; for in that case the stock of such companies would go begging; and if you want to know whether this is the case, just go down to Third Street, and try to buy a little stock in any well-established fire insurance company! Of course, we all know that your $5,000 comes out of the pockets of forty-nine others, whose houses don't burn down; and who actually get nothing at all in return for their money; for all that, the insurance of property is right and proper; and no good business man neglects it. But if the principle is correct, why not extend it to other things besides losses by fire? And so it has been extended to losses by shipwreck, by flood, by dishonesty, and to losses by death. And although life insurance was denounced from the pulpit as immoral, as trading in human life, the innate truth of the principle upon which it was founded has become established; and now a man who neglects to insure his life is looked upon as quite as improvident as the one who does not insure his house.

But the applications of the system do not stop here. There are other things which can be insured as well as houses and lives. In the system adopted by the Philadelphia Bond and Investment Company,

THE BOND DIES, NOT THE MAN.

CONSTIPATION.

WHAT DO YOU PRESCRIBE FOR IT? Doubtless proper diet, exercise, good hygiene, laxatives, cathartics and alteratives as indicated.

CASCARA CORDIAL combines with carminatives the well-known tonic laxative virtues of Cascara Sagrada. No fact is more firmly established than that Cascara Sagrada will radically relieve chronic constipation. The Cordial is free from bitterness, and agreeable to the most sensitive palate.

GLYCERIN SUPPOSITORIES are an efficient method of relieving constipation, and invaluable to those who object to fluid medicine or to pills. These suppositories afford certain relief in Hæmorrhoids.

SYRUP TRIFOLIUM COMP. is an efficient and agreeably tasting combination of valuable vegetable alteratives. If it be desired to prescribe a laxative and alterative, the following is a simple and excellent prescription:

℞ *Syr. Trifolium Comp.,*
Cascara Cordial, ää oz. iv.
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Descriptive literature of our products sent to physicians on request.

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